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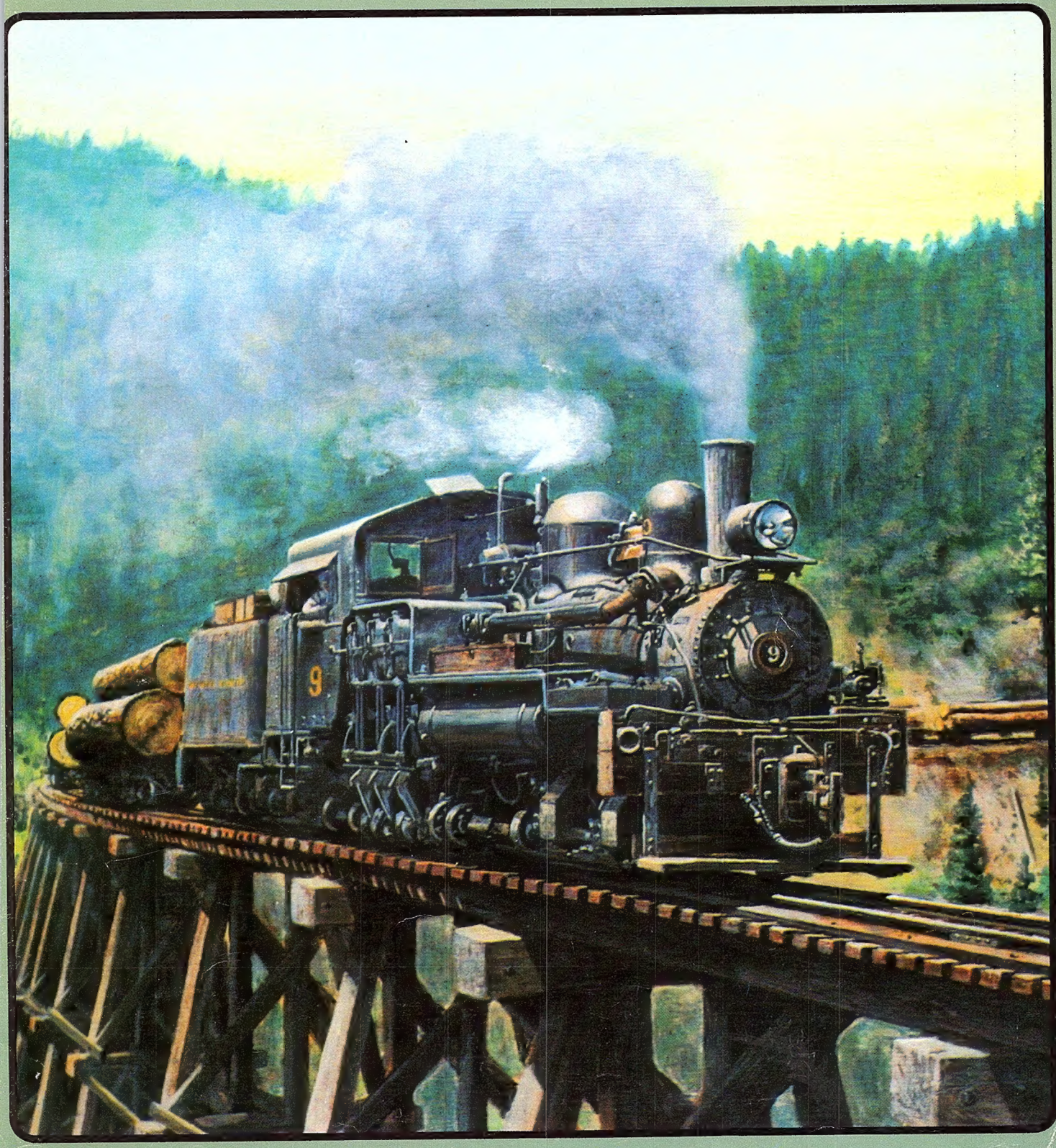

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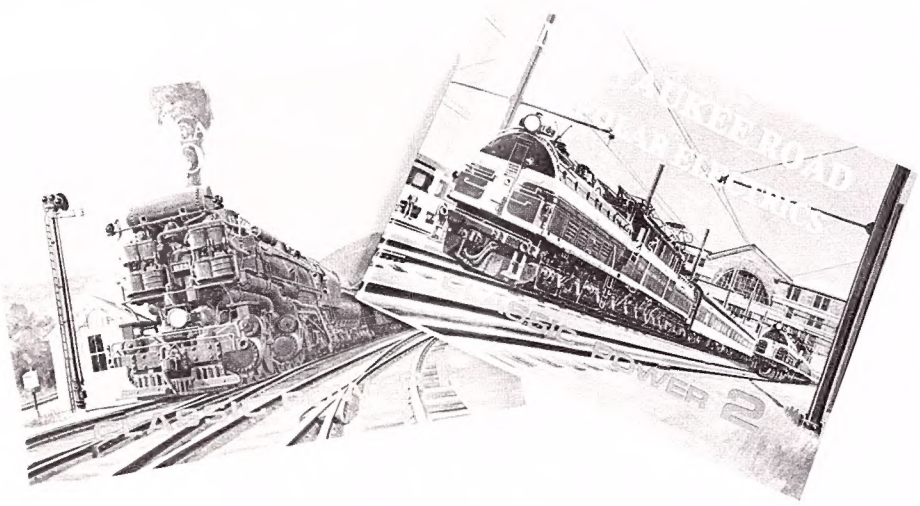

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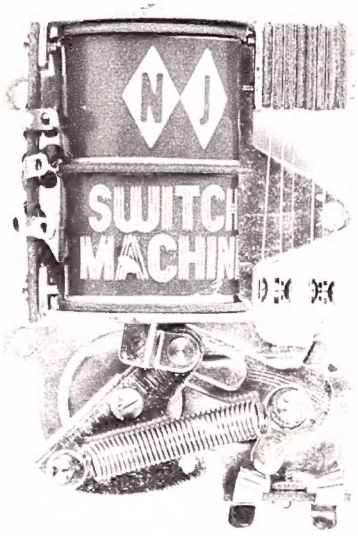

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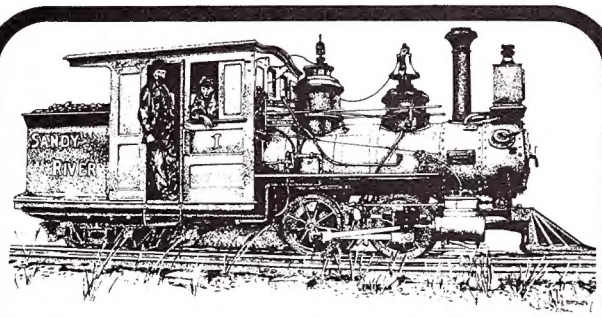

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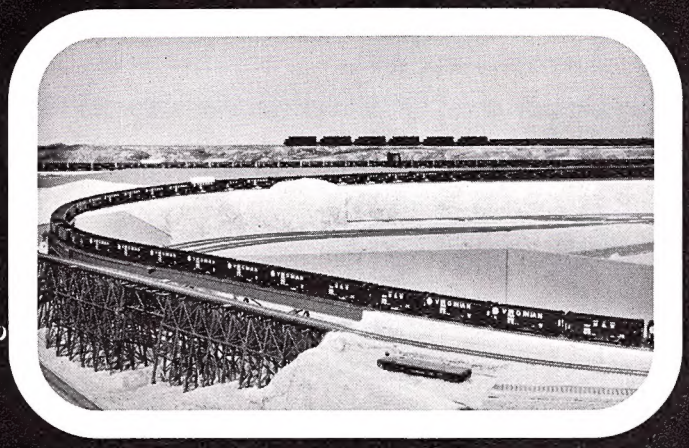
Cover

This beautiful painting of West Side Shay #8 was painted by Steve Allely. Steve has several more covers on the way. He is interested in taking commissions for paintings. If you are interested write to Steve at 1736 Minda Drive, Eugene, Oregon 97401.



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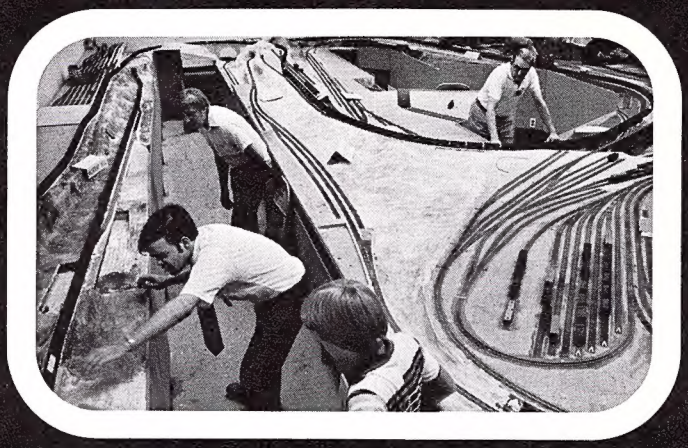
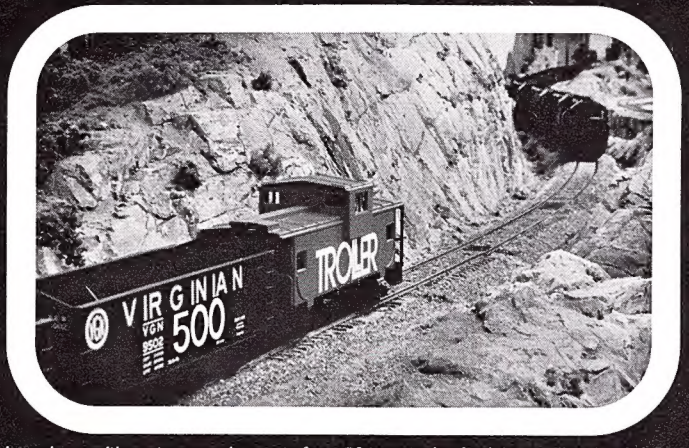


Additional work was done on lubrication and track cleaning, and track spotters were required to watch train slack and advise the engineer of required speed adjustments on grades.



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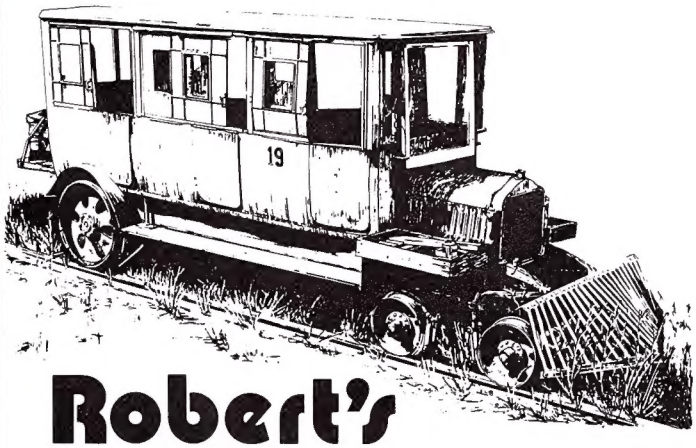


Robert's Ramblings....

This old post card view of the Forks Creek area was sent in by Cornelius W. Hauck. It shows the area in the 1900-1910 period.

Great news! It looks like there will be a National Narrow Gauge Convention. Over a year ago I mentioned Craig Brown's idea for such a convention in my Ramblings. Many of you wrote to Craig and he has written to me saying that plans are now underway for a convention in the St. Louis, Missouri area for the 7th, 8th, 9th, and 10th of October, 1981. Wednesday the 7th will be registration and probably slides and movies starting about 6 or 7 p.m. Activities will really get rolling on Thursday the 8th. There will be layout tours, a model contest judged by attendees, model displays, clinics, an auction, swap session, manufacturer's displays and portable layouts. There will be no banquet but the hotel has agreed to a buffet on Saturday evening. Craig needs several things from all of you. He needs to know who would be willing to give a clinic, and he needs to have some idea of how many of you think you will attend. He also needs to know which manufacturers plan to come and who wants to display a portable layout. There is plenty of space and the area can accomodate well over a thousand people. The convention site is actually in an outlying area of St. Louis and not in the city itself. Let's support Craig and get this convention off the ground. There have already been firm indications that other areas will be willing to host such a convention in future years. Write to Craig Brown, 7511 Murdoch Ave., St. Louis, MO 63119.

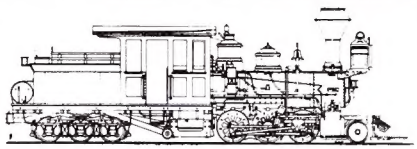
Cornelius Hauk sent in a photo of an old postcard he has showing Forks Creek station (Jan/Feb 1980 **GAZETTE**) and eating house. I also have a great photo from Mallory Hope Ferrell showing the Old Stone Store also featured in the Jan/Feb 1980 **GAZETTE**. Thanks for these photos, fellows.

I want to encourage the HO and HOn3 fraternity to send in material. Most of the model articles coming to me are in ¼ inch scale. I really would like to see more HO-HOn3, HOn30 and Sn3, material, especially Getting Them out of the Boxes items. Tell us how you did it, get famous, and make money for your hobby budget.

I need photos of Colorado & Southern business cars #910-911 and 912 in service. I have excellent plans on hand for these cars but need photos.

Bob Brown

Mallory Hope Ferrell sent in this old photo from the R.B. Jackson collection showing the Old Stone Store at Buffalo, Colorado. The train is the daily passenger train and was taken in January 1929.



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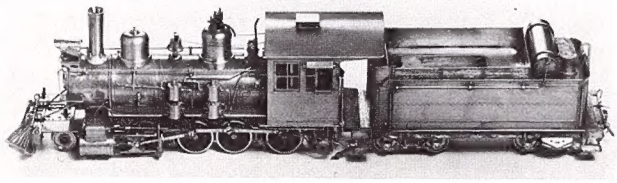

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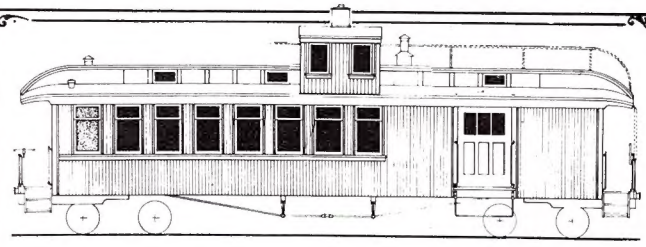

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The Pigeon Hole

Dear Bob:

The photo on page 68 of the May/June 1980 **GAZETTE** is undoubtedly of a different Rio Grande. As a long-time Missouri Pacific historian, let me offer my guess that the photo is of Rio Grande RR 3, a 42" gauge line that ran between Brownsville and Point Isabel, Texas. This line was built in 1872 and 1873 from Point Isabel on the Gulf of Mexico to Brownsville because the Rio Grande was frequently so shallow that boats could not make it from the Gulf to Brownsville. Original power on the RG RR was two Baldwin 2-4-2T's built as SN 2664 and 2670 January 1872, and delivered as RG 1-2. According to *Narrow Gauge Railways in America* (Fleming, 1875), the two locomotives weighed 14 tons, and the RG used #36 rail with a grade of eight feet to the mile. The RG RR was about 22 miles long.

In Brownsville itself there was supposed to be another line one or two miles long. This company was the Brownville & Gulf, and was reported as 36" gauge. Very hazy supposition indicates that at some early point B&G 1 4-4-0 (Baldwin 4210 12-1877) apparently became RG RR 3. If so, this is the locomotive illustrated on page 68. It would have had to be *widened* to 42" gauge, but I can't tell anything about this from the photo.

The RG RR became the RG Ry in 1911, was changed to standard gauge in 1925, and struggled along until abandonment was authorized by the ICC Oct. 14, 1940. The MP bought pieces of the line in Brownsville and Port Isabel, and the rest was scrapped in early 1941. I forgot to mention the line was renamed the Port Isabel & Rio Grande Valley in 1928, and made do with second hand MP or SP standard gauge locos thereafter.

The two 2-4-2T's were changed to 2-4-0 by the RG, and one is now in a park in Brownsville though in very bad shape. Could it be the only 42" gauge loco in the country?

I am very much interested in MP narrow gauge lines, and would like to hear from anyone who has photos and data on the Arkansas Central (42"), Washington & Hope, SW Arkansas & Indian Territory, Iron Mt & Helena, and the Sedalia, Warsaw & Southern. Would es- especially like to identify the two NG Brooks Moguls owned by the latter. Other NG lines associated with the MP included the Mississippi River & Bonne Terre (built by the St. Joseph and the Des Loge lead companies), the Kansas City & Eastern (orig. the Wyandotte, Kansas City & NW), and the Brinkley, Helena & Indian Bay.

John Baskin Harper
1660 N. LaSalle #3308
Chicago, IL 60614

Dear Bob:

The first two copies of the **GAZETTE** have just arrived after wending their way across half the world. To say that I am impressed, is an understatement. May your efforts to assist us narrow gauge mavericks continue.

I should like to congratulate messrs. Cook and Scruggs, the joint winners of your recent kit-bashing contest for having captured the spirit of narrow gauge Garratts so well. As you probably well know, South Africa is known as the home of the Garratts, both on our standard gauge (3'6") and on the narrow gauge (2') where some 180 locomotives of both sizes are still alive and well.

I should like to make the offer through your journal for anyone who is interested in more information concerning this type of loco, to contact me direct at the address below. I have a fairly extensive collection of photos of the 2-foot types as well as some direct information of the standards used by the various manufacturers. Information on the standard gauge is getting sparse because of the electrification programmes of the SAR&H but odd bits of news are sometimes available. A self-addressed envelope for replies would be helpful.

Sincerely,
David W. Rush
Department of Economics
University of Transkei
Private Bag X5092
Umtata
Republic of Transkei
Southern Africa

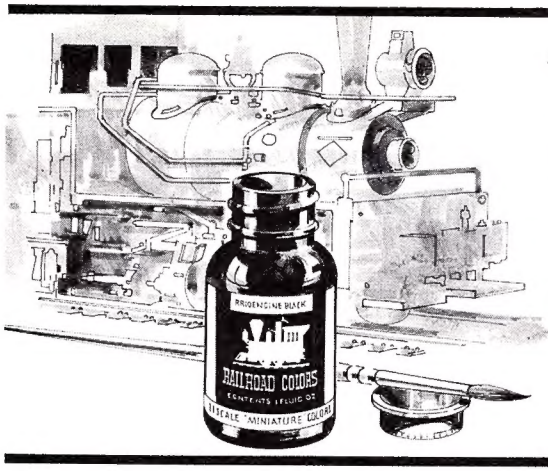
Dear Bob,

First a word of appreciation for your fine magazine.

My reason for writing is twofold. Since I am employed in historic buildings restoration I am particularly interested in the series of photographs you have been running recently illustrating some classic American styles. In this context your readers may be interested in a fine book published in two volumes, called "Lost America" by Constance M. Greiff. It's subject is America's architectural heritage and the buildings which have been lost whether by demolition or natural decay. The volumes are divided geographically, 'from the Atlantic to the Mississippi' and 'from the Mississippi to the Pacific'. While many of the buildings are of a grandiose scale there is much which could be useful to the modeler especially since the author does not confine herself to the grand public buildings which usually fill such books. If you get a chance to see it I'm sure you will agree that it is an excellent source for anyone interested in modelling structures.

In a similar vein I also read 'American Preservation' a bi-monthly magazine which is again lavishly illustrated with classic American architecture, the latest issue received here (Jan/Feb) featuring some quite fantastic photos of Victor, Colorado.

Best regards,
Brian Jobling
Newcastle upon Tyne
England



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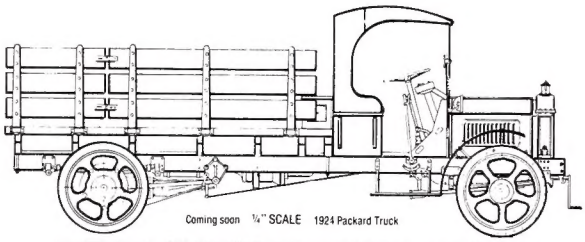

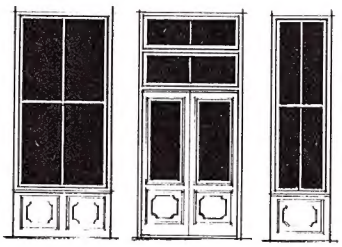

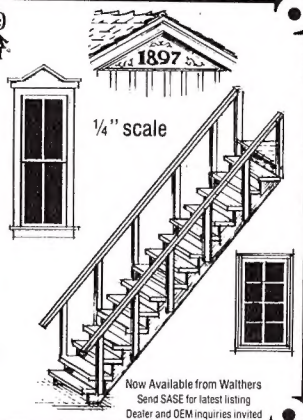

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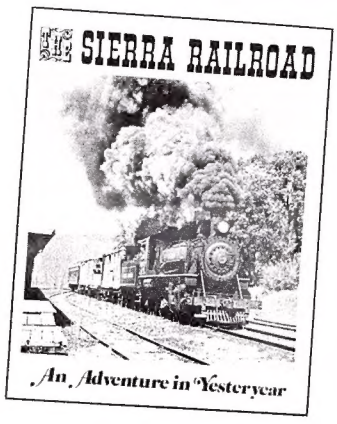

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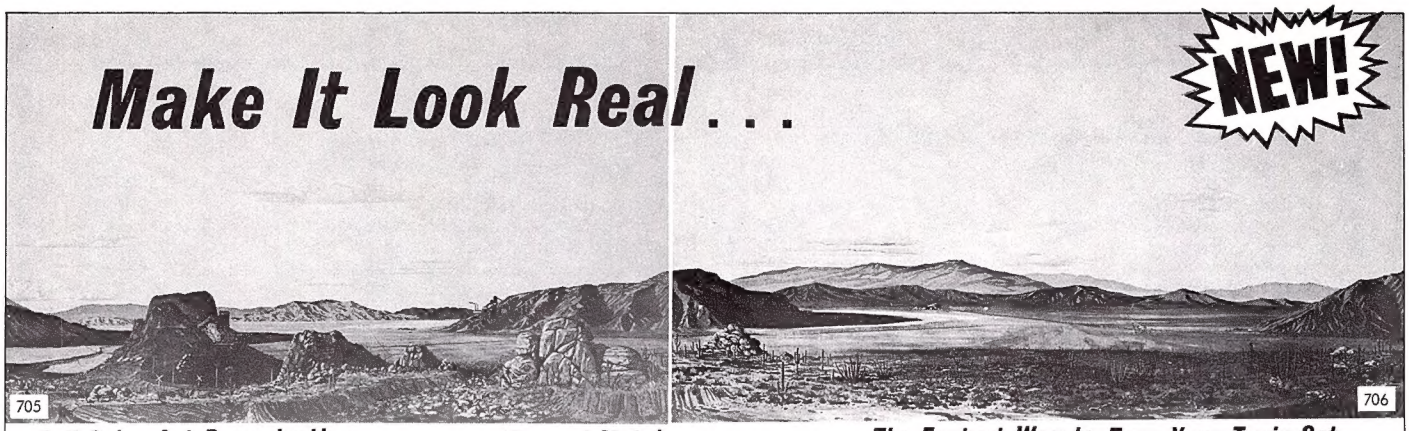

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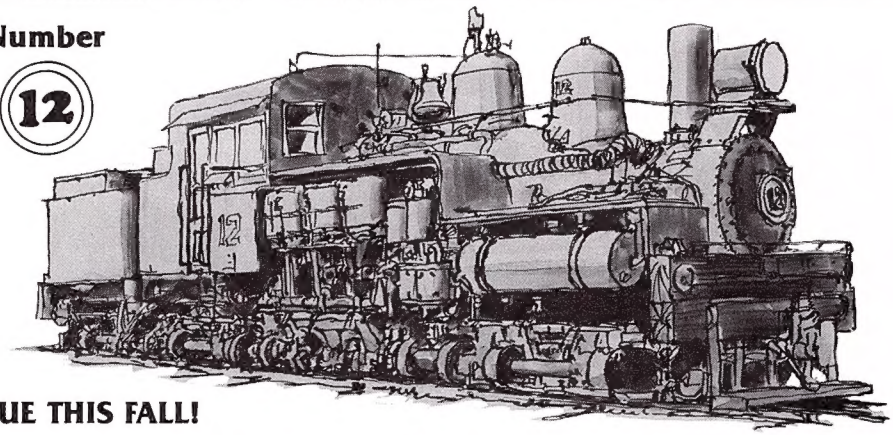

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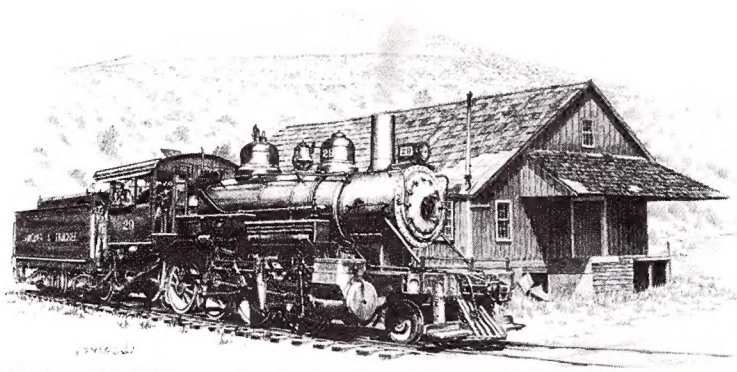

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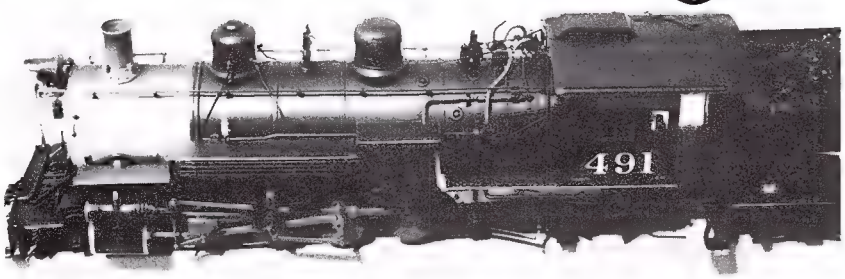

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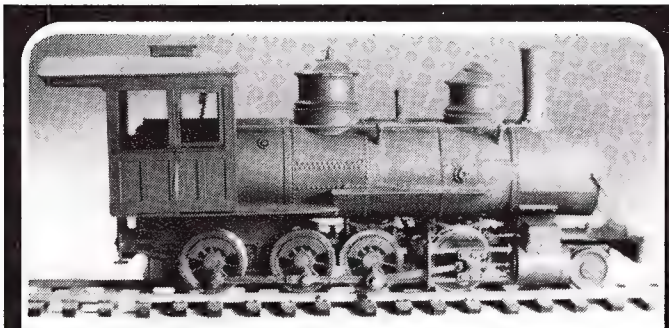

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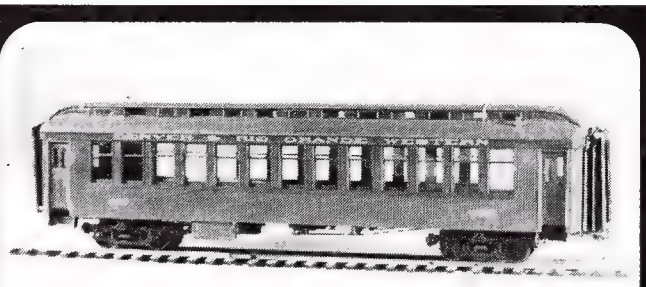

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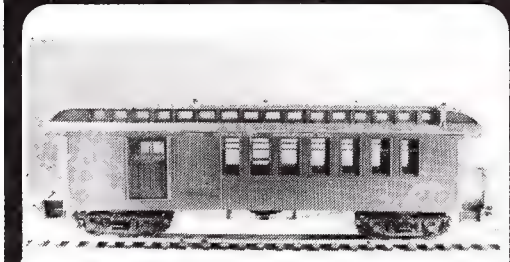

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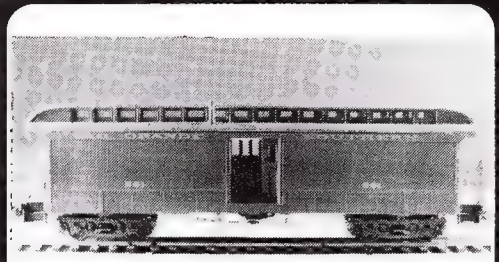

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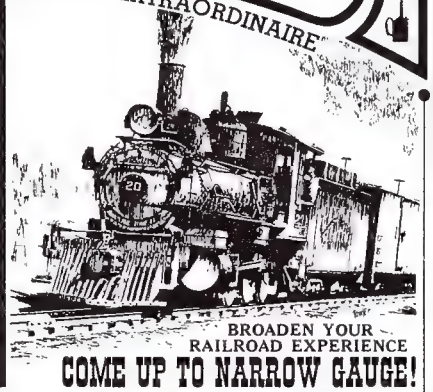

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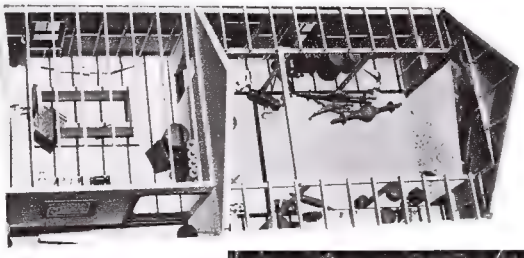

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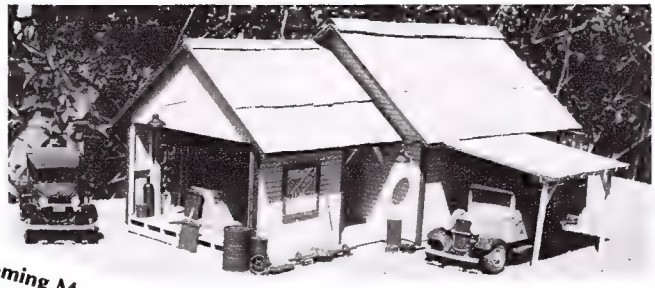

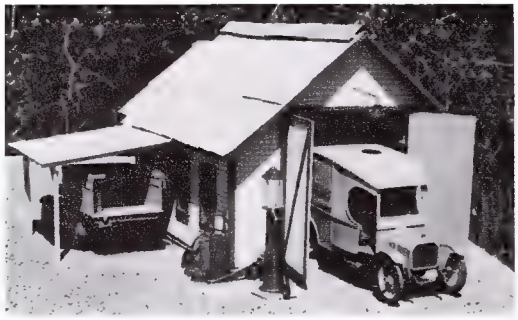

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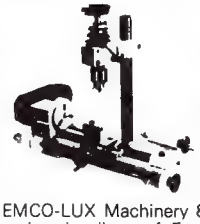

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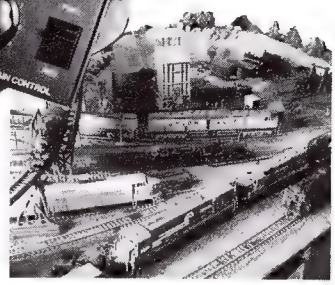

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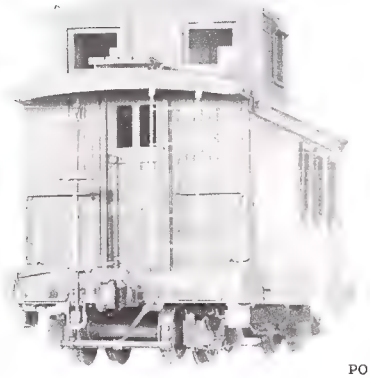

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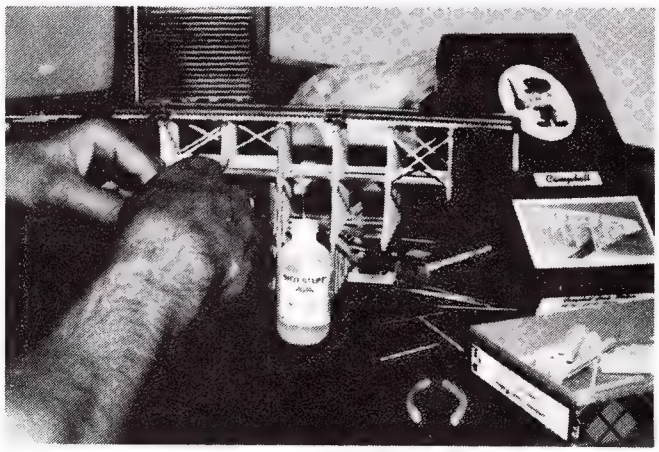

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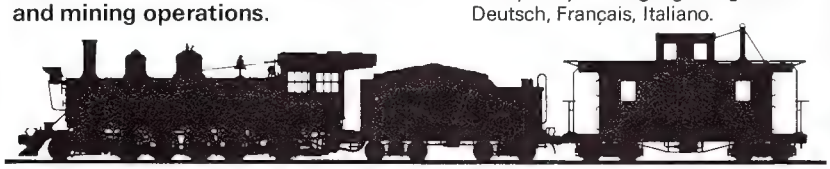

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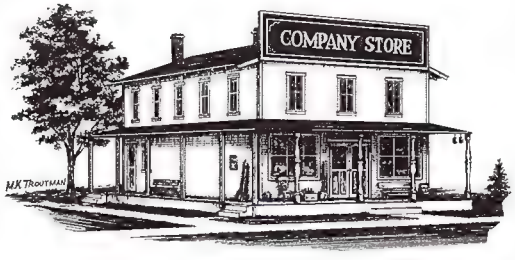

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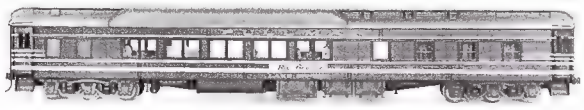

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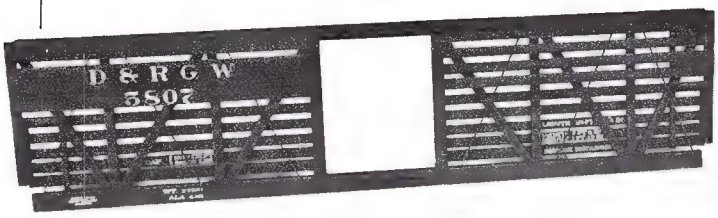

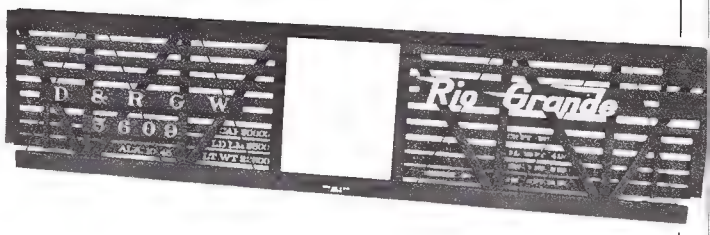

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No more saving up for those expensive brass stock cars!

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We chose to make a complete and versatile D&RGW stock car.

The E&B VALLEY stock car is made of injection molded plastic and comes complete with trucks. KADEE QUALITY PRODUCTS has licensed the E.&B. VALLEY RAILROAD COMPANY to provide molded-in coupler pockets that accomodate the KADEE #714 HOn3 coupler without any modification. Couple your stock cars together or with your other rolling stock and off you go with a realistic train.

Yes, it's four in one. This versatile kit allows you to make any one of the four common versions of the E.&B. D&RGW stock car shown above. Whatever era you model, from the turn of the century right up to that last revenue producing run, your E.&B. D&RGW stock cars will be authentic.

We choose to maintain high standards of quality and accuracy.

Yes, our kits are mass produced, that's why we can bring them to you at prices you can afford. But our kits are made to higher standards of accuracy, with particular attention to detail, than those of any other comparable company. If you've seen our ACF 70 Ton Covered Hopper, you know our standards of accuracy. For the stock car we have commissioned the famous Gould Company as our tool and die vendor. *Actual hardware* from prototype D&RGW stock cars was used to make the master patterns using a pantograph. This method allows for greater detail in the E.&B. D&RGW stock car than any other preceding car. How accurate can you get? True to the prototype? You bet!

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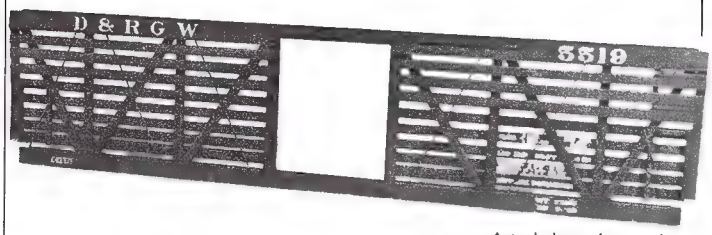

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While you're there don't forget to look at the other E.&B. Valley Railroad Kits.

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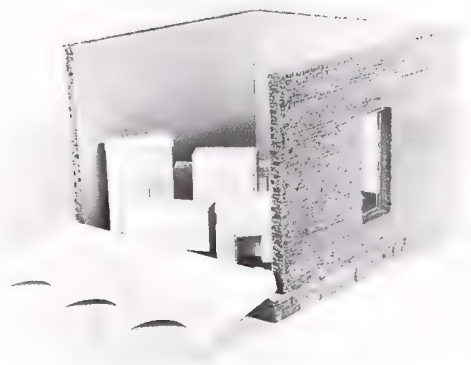
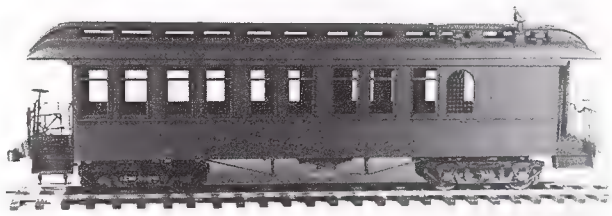
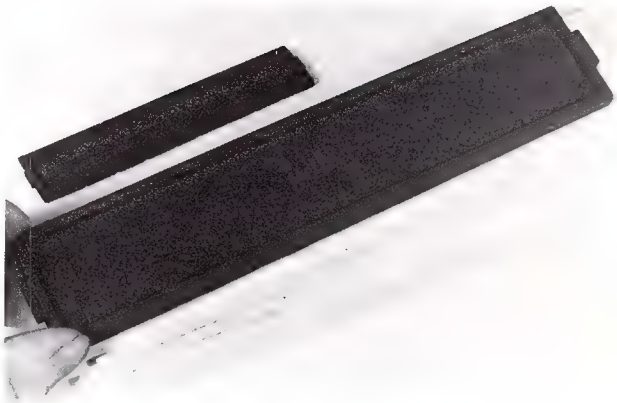


Thomas A. Yorke Ent., P.O. Box 65, Sunland, CA 91040 newest O scale building is a beautiful little bank. The building is one of Tom's best designs. The kit features a complete interior made up of plaster furniture and a plastic teller's cage. The front of the building is made up of plaster castings, wood and styrene strips, and injection molded windows and doors. The base is a one-piece casting and has the foundation and the floor boards cast into it. The rest of the sides are plaster castings and have the finest brick work cast into them I have ever seen. The windows and doors are plastic castings. At $47.95 this a must purchase for your newest town. *Bob Brown.*

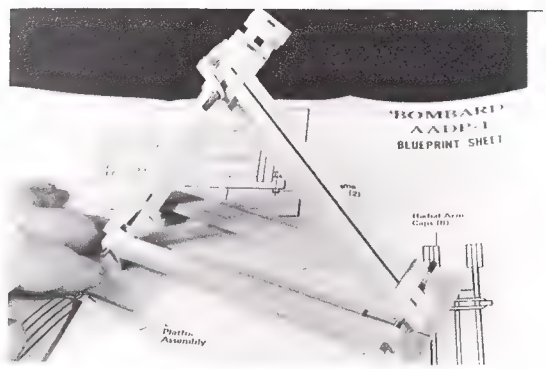
Hallmark Models, 4822 Bryan St., Dallas, TX 75204 has a beautiful On3 D&RGW-C&S brass business car #911 available. The model was made in Korea by Ajin. The workmanship is exceptionally clean with no solder showing and all parts soldered on straight. The roof is soldered to the body and the floor comes off by unscrewing four screws. There is a little two-inch sub-floor attached at each end of the car. This sub-floor holds the end-steps and platforms. It makes it a little hard to get in window material or an interior. The end platforms are beautifully detailed. The observation side railing gates work and there are little step extensions on the rear steps which swing down. The ice-box is modeled on the rear platform. The trucks are well detailed and have fully detailed metal wheels. No couplers are provided. I am very pleased with this car and I know you will be pleased also. The car sells for about $130.00. *Bob Brown.*

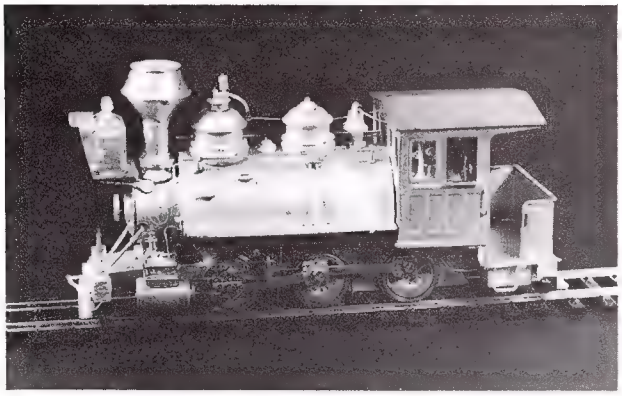




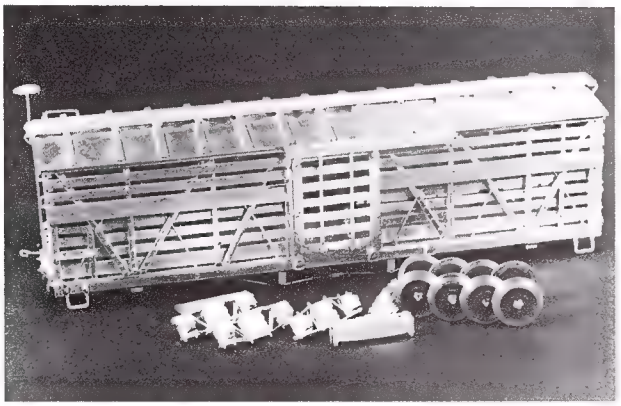
PGP Models, 75 Cambridge Ave., West Seneca, NY 14224 has a new Wiscasset Waterville & Farmington On2 flat car kit available. The car comes without trucks or couplers and sells for $17.95. The kit consists of a one-piece molded urethane body, Grandt Line detail castings, white metal bolsters and plans, and instructions. The body molding consists of the deck, side sills and end sills in one piece. These have been painted brown-red. You have to add on the inner body sills, which are provided, and the other details. PGP also has a body casting available for a SR&RL HOn2–HOn2 ½ flat car for $3.95 a pair. This new firm also has plans for several other On2 and HOn2–2½ cars kits so they deserve all the support you can offer them. *Bob Brown.*

Leave it to Mic and Gary of the **Scale Model Weathering Co.,** P.O. Box 1310, Pacifica, CA 94044 to come up with another novel idea. Their latest is for a medieval based tool called a "Bombard". Bombards threw stones into walled cities during the Crusades but Mic and Gary have adapted them to drill holes at odd angles. It is very helpful for drilling truss rod holes in trestle bents, on bridges or on rolling stock. The tool comes as pre-cut strips of wood. You follow the excellent directions and blue prints and assemble the parts with white glue. You have to drill three #42 holes. The parts are pinned together with brass rods and the tension is provided by a rubber band. You set the tool to the desired angle by using cut out cardboard angles. The cardboard is provided, you cut your own angles. This is a neat tool and sells for $4.95 plus 50¢ for postage and handling. *Bob Brown.*



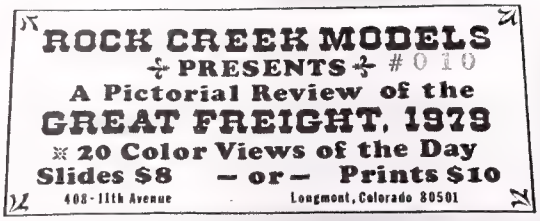


Precision Scale Co., 1120-A Gum Ave., Woodland, CA 95695 has imported a new HOn3 D&RG-RGS 0-6-0T saddle tank locomotive. The model comes ready to run and is constructed of sheet brass with lost wax castings for the detail. The model has a fully detailed cab and a completely hidden motor. The detail is excellent and the assembly is neat and accurate. My sample needed a push to get started but I am sure a little running will cure that. The locomotive runs very slowly and has good throttle response. These little 0-6-0's can be used in mining, logging, or, as in the prototype on your RGS or D&RG scene. A few of these locomotives were used in smelter service in their later years. The model sells for $198.50. Precision also has a new Colorado and Southern stock car ready. This car is in HOn3 gauge and is an all brass import from Korea by A.B. Models. The model features many investment brass castings and lost wax trucks. The detail parts are available separately from Precision and the trucks can be purchased in Delrin. The trucks are correct for either the C&S or RGS. This little stock car sells for $47.50. Soon to come in HOn3 will be the long D&RGW 5900 series stock car. *Bob Brown.*



HOn3 has new set of trucks available. They are for the Denver South Park & Pacific swing beam truck. These trucks were also used on the Denver Leadville & Gunnison, the Union Pacific Denver & Gulf, and the Colorado & Southern. The trucks are excellent lost wax brass castings and come with Grandt Line wheelsets. The trucks must be cut from the sprues, cleaned up, and assembled. The axle holes are drilled for you. The trucks have brake beams with brake shoes. No instructions are included. The trucks sell for $12.95 per pair. They are $11.95 per pair in lots of five and $10.95 per pair if you buy ten pair. These little trucks are well detailed and are a welcome addition to the market. Write to **Robert J. Chilton,** P.O. Box 143, Abington, PA 19001. *Bob Brown.*

For those of you who missed last year's Great Freight, **Rock Creek Models,** 408-11th Ave., Longmont, CO 80501 has a beautiful set of 35mm color slides available. The slides are colorful and sharp and show the run from beginning to end. A set of 20 slides in a plastic case sells for $8.00. Each slide is numbered. A set of prints can be obtained for $10.00. Each set comes with a two page description of the trip. There are several views of K-36 #484 in her green boiler jacket before the trip and many views along the way, including the watering stops. I know you will enjoy this set of slides from this trip over the Cumbres & Toltec. *Bob Brown.*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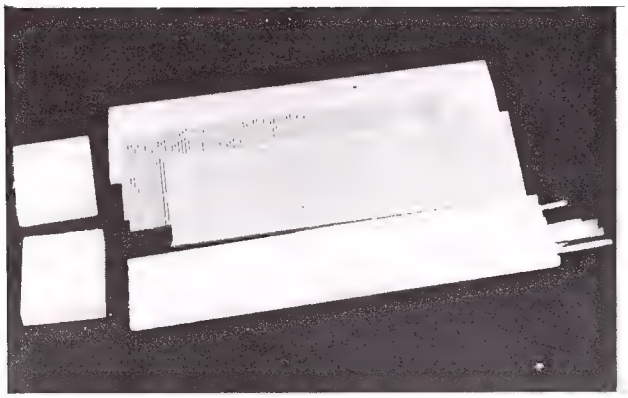
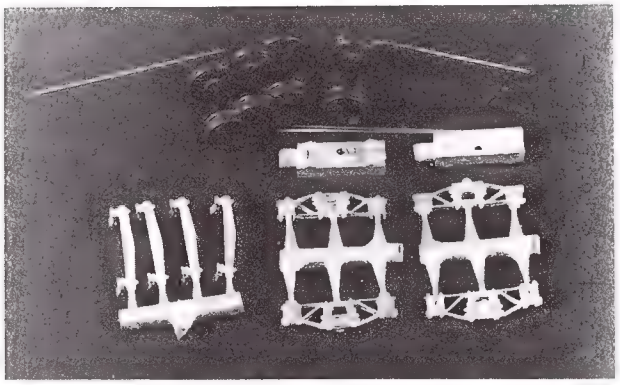


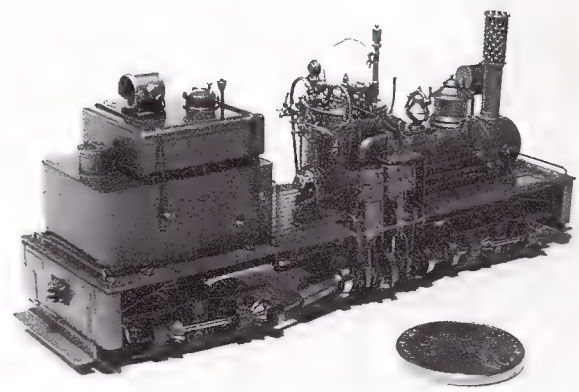
The Original Whistle Stop Kit Company is marketing a new HOn3 box car kit under the Classic Miniature's name. These kits come unpainted for $2.95 and can also be obtained with the sides painted and a "Flying Herald" for $3.95. The kits consist of a milled floor and roof, end blocks, scribed sides, and all strip wood necessary to build a box car body. If you are looking for a good basic body try one of these kits. Write to **Classic Miniatures,** 4220 A Roseville Rd., North Highlands, CA 95660. *Bob Brown.*



PFM, P.O. Box 57, Edmunds, WA 98020 has imported Mich-Cal #2 in HO-HOn3. The model was assembled in Japan and is composed of sheet brass, turnings, coinings, and lost wax castings. The assembly on our sample was neatly executed with little excess solder and no loose parts. The model is well detailed and, based on available photos, appears to conform to the prototype.

A can type motor mounted in the bunker drives a gear tower which powers a drive shaft in line with, but below, the model's frame to a concealed spur gear in the boiler. The spur gear drives a vertically mounted worm gear down to another worm gear on the crankshaft and from there on, it's just like the prototype. Right out of the box, our model ran stiffly, but after lubrication, it smoothed out considerably. The model exhibited good throttle response with some gear noise present at all speeds. Fifteen inch curves and #4 turnouts were easily negotiated by the standard gauge version of the model.

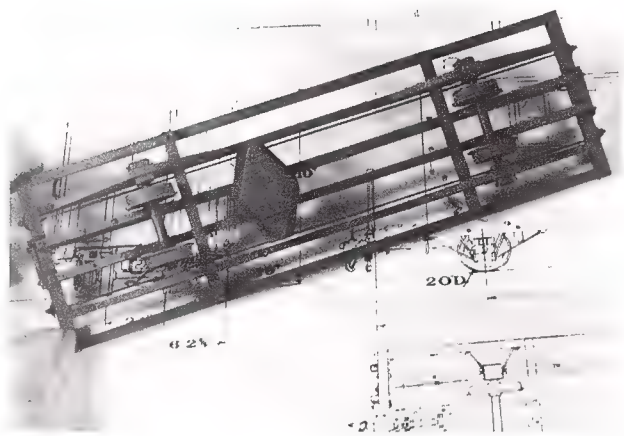
When compared to scale plans by both Grandt and Armitage, the model scaled four feet, three inches too long, and one foot too high. The boiler was six inches too large in diameter, the trucks were eight inches too long, and the wheel base is three feet too long. The bunker is slightly oversize, probably to accomodate the motor. The model is



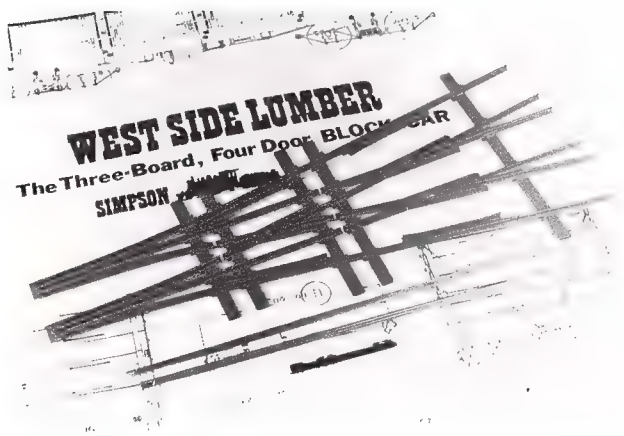
equipped with a removable cab which facilitates viewing and painting the interior detailing.

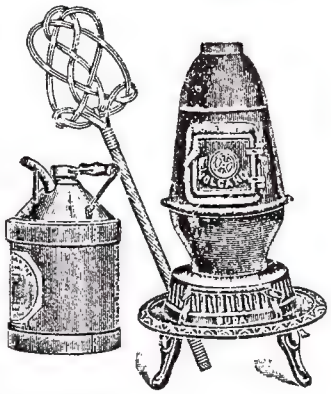
Overall, the PFM Mich-Cal #2 is a well-made, well-proportioned little locomotive loaded with charm. The retail price is approximately $448. *Lee Gustafson.*

Madruga Model Works, P.O. Box 1143, Milpitas, CA 95035 has two new On2 kits available. The first is for SR&RL flanger #505, the second is for #503. I have a sample of #505. I only assembled my kit up to the floor because I want to build an individual board superstructure for it. The plans show you how to do this but the kit comes with pre-cut scribed wood. The flanger comes with all the parts necessary to build the model. There are special white metal truck pedestals and a white metal flanger blade. Grandt Line wheels are provided as are nuts and bolts, windows, steps, stake pockets and brake detail. The doors and windows have to be cut out. A complete set of plans is included showing the illusive inside flanger operating mechanism. Step by step instructions are included. The parts are packed in lettered bags for easy identification. Some of the wood parts for #505 were cut too long and need to be trimmed. These are very limited run kits so hurry to get yours. Each kit sells for $22.00 plus $1.50 for shipping. *Bob Brown.*



Russ Simpson has a new plan pack available for the Westside block cars. The set is of the usual fine quality of Simpson's other plans and includes a page of data on these cars. The set includes the first generation Carter 24-foot flat/cord car, the three-board, four-door block car, the three-board five-door block car, and the two board, five-door block car. These plans are all done in ¼ inch scale and should make building a block car, or all four versions of these cars, a practical reality. The price is $2.98. Russ also sent in one of his excellent custom made turnouts. I have used his turnouts for years and swear by, not at, them. The sample is for a code .070 Sn3 three-way stub switch. It comes all assembled and mounted on PC ties. The stub bridle is a plastic casting and the stubs are rails which slide into the clips on the bridle. The turnout is painted a rust color. These turnouts are also available in HOn3 and On3. Price is $30.00. Write to Simpson at Box 256, Smith Flat, CA 95727 for a complete catalog. *Bob Brown.*



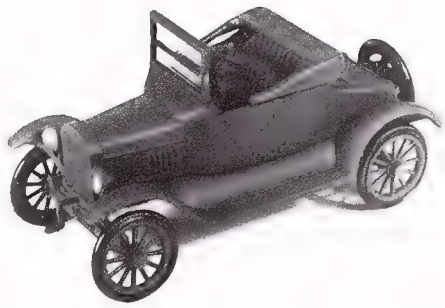


BITS & PIECES: What's New in Detail Parts by Bob Brown

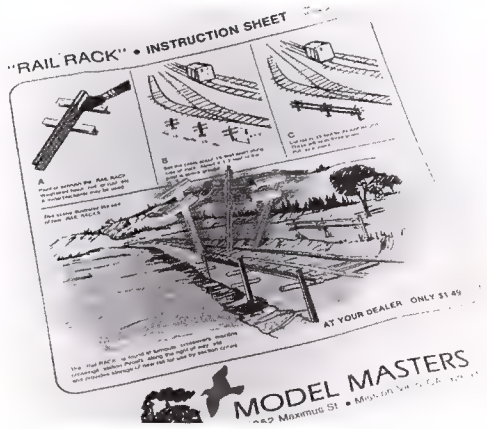
Don Winter, 655 Newport St., Denver, CO 80220 has a new steamless steam roller available for $6.50. He also has a new small stove for $2.50 and a tall stove like the one at the top of this page for $3.25. The lumber dolly shown sells for $1.75. Don has also produced the very popular Michigan/California Lumber Company disconnect log car side frames. These sell for $3.50 per set of four. All of these parts are cast in white metal. Make sure you write to Don for the list of his ever expanding line of ¼ inch detail parts.

The 1:48 Renwal auto kits are sought after in the U.S. as collector's items. The dies for these kits were sent to different countries in Europe and are now surfacing. **Rittech** is now offering several of the more popular kits for sale. Rittech has been a **GAZETTE** advertiser for many years and is a reliable mail order firm in Switzerland. Rittech has available the 1932 Model B Ford, the 1930 Packard Victoria, the 1931 Cadillac Phaeton, the sought after 1925 Model T Ford, the 1929 Model A Ford, the 1914 Mercer Raceabout, and the 1916 Stutz Bearcat.

These kits are available for $5.00 each via surface mail and $6.00 each via air mail. Incidentally the kits are now labeled as Revell kits and the instructions have been re-done in an all drawing format. They are much easier to follow than the old Renwal instructions. The kits do not have the little display cases which came in the old Renwal kits. You can get the cars by writing to **Rittech** SA, Chemin du Vignoble 36, CH-1232 Confignon (Geneve) Switzerland. If you're in a hurry call overseas 022/572037 but remember the time difference.



Model Masters, 25352 Maximus St., Mission Viejo, CA 92691 has a nifty little new HO detail piece. They are selling a rail rack for $1.49. The rack consists of three white metal castings depicting rails welded together for holding extra rails along the right-of-way. They could be used in almost any scale.



Chooch Enterprises, Box 3882, Glendale, CA 91201 has a set of HO scale billboards available. Each kit comes with five billboards printed in four colors. Each kit has special white metal castings and a plastic lattice molding by Grandt. A kit of five billboards sells for $8.00.

CHOOCH GAS STATION
by Bob Brown

The new Standard Oil gas station in ¼ inch scale by Chooch is a real mini-scene all by itself. The model can be used on a layout or it can stand alone in a glass case or on a mantle. The model is based on a set of basic plans by Standard Oil which was used during the 1930's and 1940's. These pre-fab gas stations could be seen anywhere Standard Oil products were sold.

The kit consists of everything needed to build the structure except for paints and adhesives. The basic building is made out of heavy pre-cut styrene. The four walls have the window openings cut out. You do have to cut out the front door opening. The roof is also made out of heavy precut styrene. The three roof pieces are scribed to represent the seams in the pre-fabricated metal roof. The walls of the building are just plain sheet metal. The windows are multi-paned plastic injection moldings. Each window has one open section which can be left swung open or closed. The windows fit right into the window openings with little or no trouble. I assembled my walls using MEK and then sprayed the whole building Floquil Antique White. This caused the walls to warp so I made a cardboard floor which straightened things out. The prototype building was painted red, white and blue. So I masked the top and bottom of the building with drawing tape, not masking tape, and sprayed the colors on. The roof is painted blue. The signs are made out of styrene and have special four-color decals which add a great deal of atmosphere to the building.

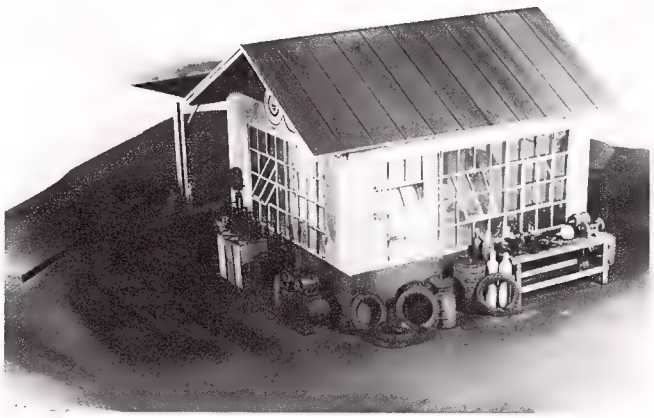
I mounted my station on a piece of ½ inch thick softboard with a layer of ⅛ inch masonite for the pavement. The kit comes with a cast urethane set of sidewalks which are the thickness of the Masonite. These sidewalk pieces have all the cracks, and seams of the concrete plus a manhole cover cast into them. After the sidewalks and Masonite base were installed I spray painted them with several shades of gray. I then glued the urethane foundation for the gas station and the urethane casting for the pump island in place.

I had never weathered a painted styrene building before doing this kit, so I was concerned about ruining my model. I used dry colors to weather my gas station and I am very pleased with the results. I very gently brushed on black in long upward strokes on the roof and up along the sides of the building. I followed these strokes with strokes of brown. The secret to success using this technique is to be very gentle in your brush strokes. If you bear down too hard you will cause the powdered color to mark the surface of the wall like a chalk mark.

The rest of the kit is composed of many white metal castings from the extensive Chooch line. I assembled these, painted them and then installed them following the photos in the kit. A dry color dusting blended them into the model. I also dry dusted the concrete area. This is a marvelous kit of an interesting prototype. The completeness of the detail will make this kit stand out on your layout. The first run of these kits is selling for $70.00. I understand that the second run will sell at a higher price so get yours now.

The completed gas station showing the weathering, signs and many detail parts provided in this excellent kit.

A front view of the model. Note the prominent lettering on the signs. This lettering is provided as specially made four color decals by Chooch.



The back side of the gas station is just as detailed as the front. Notice all of those tires and the detailed and busy look provided by the multi-paned windows.

ON3 D&RGW 3000 SERIES BOX CAR
by Bob Brown

The Crossing Gate, 6468 Moraga Ave., Oakland, CA 94611 has brought out the second in their series of On3 D&RGW rolling stock. The D&RGW rebuilt 100 of its narrow gauge boxcars in the Alamosa shops. These cars were rebuilt in about 82 man-hours, from Oregon pine and oak, and required 47 bolts, 16 rivets, 4868 nails, 30 penny spikes, and 134 screws. Further information on these rebuilt boxcars was published in Vol. 77, No. 1 of *Railway Age*. The Crossing Gate kit is the rebuilt version of these cars.

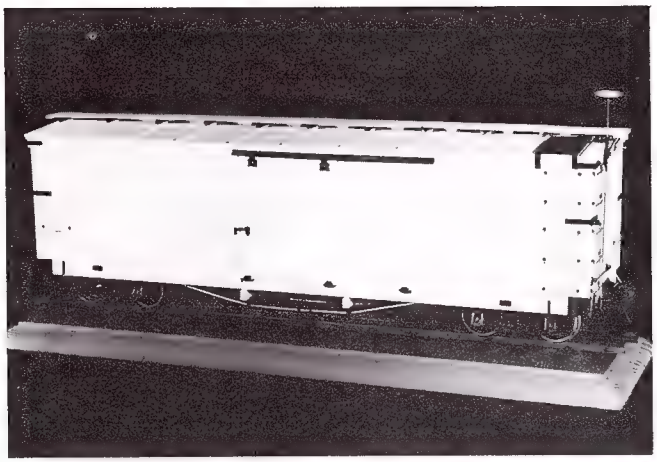
Like the first kit in this series, the high side gondola, the box car is almost entirely made up of Evergreen Scale Models styrene. The underframe is made up of pre-cut styrene strip and the body is composed of pre-cut strip sheets of scribed styrene. Some trimming is necessary on the length of the sides and the roof angle has to be cut into the sheet styrene ends. The cutting of parts for this kit is very accurate. However, on the first run of kits the end facia strips were about 1/32 of an inch too short. The Crossing Gate replaced these strips without my asking and I understand they are doing the same in all of the first run kits.

Once the basic body parts are assembled, you need to add the many small details that make this an outstanding model. As an example of the wealth of detail, the two center sills have 96 nut and bolt castings. You have to add each one of them by drilling a hole and inserting the Grandt Line castings. Then you have to drill two holes for each grab iron plus two holes for the nuts and bolts on each grab iron. That comes to about 100 more holes. Then you get to bend up the hand grabs. It is not has hard as it sounds, and the crisp detail that results in this kind of detailed model building is well worth the time and effort. The car is covered with Grandt Line plastic detail castings. All the door hinges and latches are separate castings, the underbody air brake detail is all there and every plate, angle, and nut and bolt is a separate piece on the car. In fact you get more parts than you can use since the Grandt Line castings sets are for more than just a 3000 series car. You even get a length of cast chain for the brake gear. The trucks are Grandt Line Delrin parts and come assembled with the detailed Grandt Line wheel sets. The brake rigging and shoes need to be added to the trucks. The kit also comes with semi-automatic Grandt Line Delrin knuckle couplers. Thin-Film decals are provided. That means the kit is complete except for glue and paint. A two page set of plans is included as are step by step instructions.

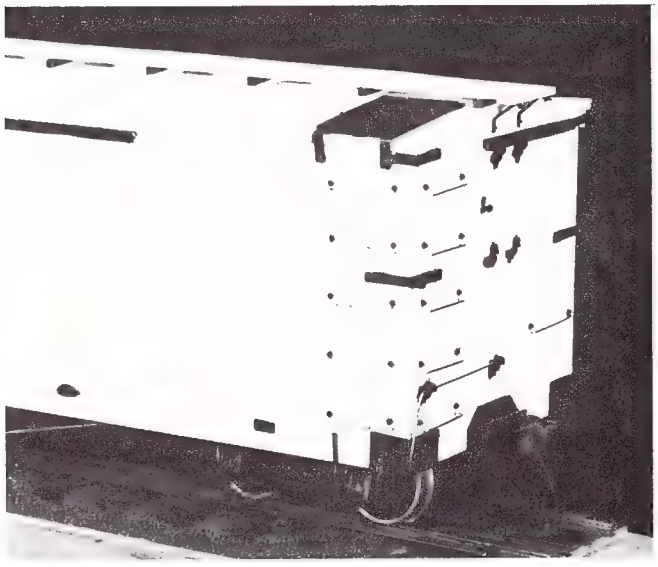
I had never assembled a car completely from styrene before this kit. I found the material very easy to work with and it goes together very rapidly. I used MEK for my adhesive. You merely have to place a part in position and touch near it with a small brush loaded with MEK to attach the part. You do need to watch out that the MEK does not run onto the styrene where you can put your thumb in it. Then you have a problem.

I recommend that you follow the step by step instructions to the letter or you will get one part on in the wrong order and not be able to attach another part.

I did not quite finish my car before deadline. I photographed my model unpainted in the hope that the black detail parts would show up better. This is an excellent kit that with careful assembly will make into a fully detailed and pleasing model of a very common narrow gauge car.



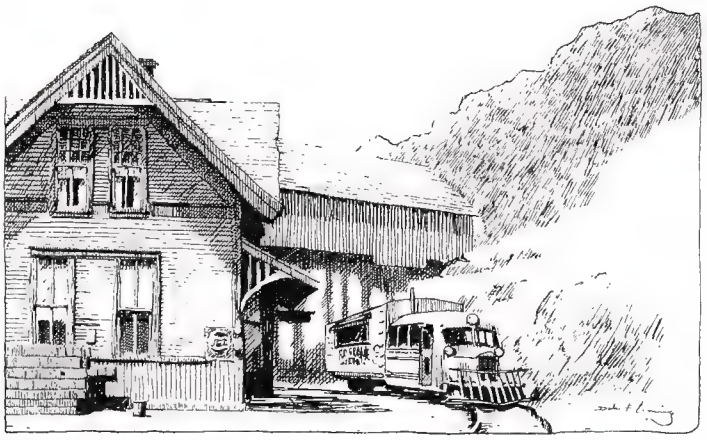
The almost completed boxcar kit. Notice the many little black detail castings and the excellent Delrin trucks. The car rolls very nicely.



Another view of the box car.

One of the prototype D&RGW 3000 series boxcars photographed in Farmington, New Mexico in 1961. *Photo by Bob Brown.*

The Narrow Gauge SCENE



by Charlie Getz

I love conventions! Not only are they held in such exotic places as Anaheim or Orlando; not only do I get to meet some of you readers (which is always good for the ego); but a tour of the manufacturers' booths makes writing this column unusually easy. The recent PCR convention near Disneyland left me with lots of news.

The big news on the locomotive front continues to be Grandt's 0-4-0T in On3, the Natalie. It would not be exagerating to predict that this engine could revolutionalize the On3 market. For under $100 the modeler can obtain a well-detailed, well-powered engine with endless cross-kitting possibilities. Grandt recognizes this, and promises a saddle tank, side tank and tender versions. A detailing kit will add interior detailing to the cab and such "upgrading" as a brass bell.

I had the opportunity to examine closely the Sn3 K-37 from PBL. I was happy to see that this engine ran superbly right out of the box. One of the production run models was taken out of the box, placed on the rails at PBL's display, the power turned on, and it ran smoother than most engines I've seen. This well detailed locomotive should give quite a boost to Sn3, which is growing rapidly.

The Original Whistle Stop was displaying its derelict C-16 engines in both HOn3 and On3. These engines consist of urethane boilers and cabs with white metal running gear parts. There is no question that they can be powered, and indeed, plans are afoot to offer a powered version of a C-16 for around $100. Having seen one of these "derelict" engines running, I can assure you that it is not a pipe dream. Of course, the derelict engines themselves would be an unusual and interesting scenic detail to any scene. Many prototype photos show such engines rusting away on a spur track before being hauled off to the scrap yard. Rarely, however, are such scenes modeled, especially with the price of brass engines.

Finally on the engine front, Key Imports displayed its new C&S #22, a 2-6-0 in HOn3. This was a class B-38 engine which with sister #21, was operated by the C&S until 1923. They were built by Brook's Locomotive Works in 1882 for the DSP&P. Didn't get a chance to see this one run, but the detail on it is very good.

On the rolling stock front, the big news for HOn3 modelers is stock cars. E&B Valley Railroad Company has a new stock car kit in styrene which should be available about now. Their stock car kit will build all four versions operated by the D&RGW, and retails for $9.95. The pattern work is done by the Gould Company, and the samples I have seen are very, very good. Another well known name in the HOn3 car market, Rail Line, is also planning a stock car for release. According to Rail Line, their styrene kit should be available in the fall, and will be followed shortly by a number of other styrene cars. If that wasn't enough, Empire-Midland has a brass C&S RGS stock car planned for release soon. And don't forget Precision Scale's brass C&S stock car in HOn3. Now if your head is spinning with images of stock cars, join the crowd.

Of course, there is a lot more news in the rolling stock scene than stock cars. But since we're on that subject, you ¼ inch modelers should not feel left out as Grandt is working on an RGS stock car in that scale. Durango Press' new ¼ inch derrick OP is really superb. I've seen the kit, and a built-up model. It's one of those project kits that you can tuck under your arm, disappear into the basement, and reappear three months later with a contest quality model. Such a complex kit should not be taken lightly; all of the materials are there for a really excellent model. Durango Press is working now on the ¼ inch Marion steam shovel which will be a very small run of about 200. There is a large amount of pattern work with such a complicated piece of machinery, so the price may be high, but will be worth it.

E&B is also working hard on R.P.O.'s, of which three versions are offered. Down the line, they hope to produce HOn3 Galloping Geese of the RGS with patterns by Bill Gould and power supplied by Northwest Short Line. This will be an exciting project, and we will bring you more details as they are available.

In Sn3, Precision Styrene offers an Sn3 N-C-O gondola under the label of Precision Vintage Classics. This is the beginning of a series of cars in a number of

Here is a peek at a side of the new HOn3 E&B Valley stock car. E&B Valley has rapidly become one of the leading manufacturers of HOn3 rolling stock. At last count they had nearly 30 different versions of their cabooses and passenger cars. They are continuing to add to this line with their new stock car, available in mid-July.

scales to be offered with Grandt parts and Precision's excellent styrene. Look next for a Weyerhaeuser log car in HO, O, and S standard gauge. Also in Sn3, Rio Grande Models has a frameless tank car a la Gramps coming, a 6500 Series D&RGW flat car as well as a boxcar correct for the Florence and Cripple Creek – SP-NCO-NCNG-MAGMA Arizona-Montana Southern Railroads. That's because the F&CC boxcars were dispersed that widely. Who said that narrow gauges did not interchange, and one of those roads is standard gauge. Rio Grande Models also is finishing up their Sierra Rwy. standard gauge side dump car in HO.

Besides the stock car, Empire-Midland hopes to do a maintenance of way bunk car and also released a 6500 series flat with and without bulkheads in HOn3.

No doubt about it, I'm a real structure nut. Just can't get enough of them, so I was more than happy to see some superb structures coming from various manufacturers. First of all, there is Chooch's new gas station in ¼ inch scale. The amount of detail in this kit is staggering, although not unexpected. Bob is assembling one for review in this issue, and I'll let that speak for itself.

Chooch has a number of other models on the market which are of excellent quality. In HO, there is a nice little "Columbia Depot" by John Olsen; the first of what is called the "Rust and Dust series" by Olsen in that scale. The depot is cast in polyurethane with Grandt windows and white metal detail parts, as kit 9004. There is also a new loading dock in HO, kit 9005, as well as billboards in that scale, kit 5151. We also saw samples of the brick branch line freight station in ¼ inch kit 6114. The brick is really excellent and this should be a sure hit as well.

Also high on the excellent list is Yorke's new Bordello/pool hall in HO and O. This kit really captures the flavor of a depression era building which has seen better days and better uses. It is a natural for interior detailing (to a point), and if placed next to a gas station from Chooch, could form an entire town. If all that stone and brick intimidates you, Yorke is offering a practice wall in both HO and ¼ inch for $10.95 for color experiments following Tom's superb instructions. Coming in HO will be the bank recently released in ¼ inch as well as more furnishings in ¼ inch. In September look for a brick store in ¼ inch and HO based on a prototype in Sonora, and then the "Borscht Building" in ¼ inch only. This will be a limited number two-story brick corner store with a corner turret and onion dome. I have a feeling this will be hard to beet (ouch).

The Structure Company which has a small but excellent line of buildings will almost double its existing line starting with the Forks Creek station in HO, featured in past pages of the **GAZETTE**, and an ore tipple. The Structure Company is also releasing a modification kit for the Montezuma post Office which adds to the back and extends its length to create a most interesting warehouse, similar to one that still stands at Dolores, Colorado on the old RGS line. The Structure Company also plans to produce a two story T shaped building with cast foundation in HO, and Ron advises me that the Montezuma Post Office may soon be offered in ¼ inch as well.

In our Products of Interest department, Model Dynamics has a new Sonora freight house based on a John Olsen design cast in polyurethane which is really nice. This one in HO . . . Creative Screen Process, CSP for short, 555 East Airline Way, Gardena, California 90248, has some nice HO signs for street and highway usage which appear contemporary and are very effective. I was pleased to see street signs, a most common detail rarely modeled due to the difficulty of getting lettering that small. Now you can have First and Grand Avenue covered on your layout. House numbers anyone? ... Taurus Products, P.O. Box 6534, Orange, California 92667, continues to offer some buildings with a nice light touch. What I mean is that they are fine and really appear in scale. The latest release is the Daley Brothers Pipe and Supply Company in HO, kit 201 at $16.95. This is a small industry with an interesting "backyard" full of pipes and flues . . . Campbell was displaying some interesting new structures as well. They will soon be offering a kit for "San Angelo Fruit Company" and the "Montgomery Feed Supply", the latter being a nice long building.

Evergreen Hill Designs has been most busy. They are releasing the Buckmaster Radiator Repair Shop in both HO and ¼ inch, and also plan a flexible trestle kit in both scales. The big news is that they have taken over the Hetch Hetchy line (with a few exceptions). The caterpillar in HO for one will again be available, as well as some of the other fine products that Hetch Hetchy produced. It is rumored that EHD may release a ¼ inch version of a caterpillar tractor, which would really be something ... The Gould Company has added another truck to the one announced last column. They will now be producing two ¼ inch 1924 Packard trucks this fall, price to be announced. Gould is also producing kits in N scale and in HO including detailed parts. Unsurpassed quality in any scale ...

V&T Shops, Box 5597, Reno, Nevada 89513 has a new C&S water tank kit in On3 which is really excellent with both a flat and peaked roof. The flat roof is very unusual and guaranteed to draw comment from visitors to your layout. Coming from V&T Shops are ¼ inch and S scale figures, SP Combine #400 in Sn3, and V&T flanger #52 and derrick car #50 in HO and ¼ inch . . . The SS Ltd. division of Walthers showed its new line of structure kits mentioned last column, and an unbelievably realistic line of trees. Raised a lot of eyebrows, but John Coots has been doing that for years ... Bar-One, P.O. Box 5229, San Pedro, California 90731, has an interesting line of scenic details including cast trees stumps and weeds, made of a dyed twine material. They also have polymer castings for a work bench and tool rack in ¼ inch, which are a little on the crude side, but could be effective in an interior . . .

Beside the rolling stock mentioned earlier, Durango Press is gearing up for a line of ¼ inch figures which should be a boost to that scale ... also in ¼ inch, Period Miniatures' Grizzly Flats Depot should be available soon. This one features windows which can be raised or lowered; this must be some kind of first. The hoped for price is $49.95 . . . Sequoia Models has a number of new structures coming which

The Columbia Depot is the first in a new series of Chooch HO kits based on structures from John Olson's famous Mescal Lines Railroad. The kit is cast in polyurethane and features Grandt windows and Chooch white metal details. The kit will sell for $22.00.

are real charmers. McClungs Meat Packers has enough angles and out-buildings to satisfy anyone's desire, and their "Electrical Supply Co." which really isn't finally named yet, is destined to be a classic. They also have a little factory, about ready for release, based upon a 1950's **MODEL RAILROADER** article which was immensely popular in its day. One item Sequoia produces which is often overlooked is a 4000 series boxcar in HOn3 based on a D&RG prototype; I suspect it is sized about right for HOn30 inch . . .

Detail Associates has a nice kit called Ponderosa tank in HO which is a delicate-appearing open-top water tank. In O scale, they're offering a number of their castings from the steam loco detail set separately. These include the rerail frogs, screwjacks, and waterbags . . .

The big news from Detail Associates is their new system of modular backdrops. I had a chance to examine these backdrops, read their instruction manual, and was highly impressed by the approach. Like other backdrops, each scene is designed to match on either end, and the line includes a variety of different landscapes from mountains to meadows to urban areas. Unlike other scenes, these are designed to be applied and attached to a sky backdrop, and unlike other scenes, there is a great amount of flexibility built in. Each of the backdrops includes a number of alternative buildings, trees, or details which are printed separately, and can be substituted for those in the major scene. In operation, the scenes are cut out and attached directly to a painted backdrop. Then individual building signs, trees, or other details can be cut and attached to modify and customize a particular scene. Thus it should be relatively easy to create a unique backdrop as long as you might wish.

If you were inspired by Al Armitage's article in the last **GAZETTE** on rock molds, but don't relish the idea of sitting in the hot sun waiting for your rubber to cure, you can obtain some readymade rock molds from Stone Works Model Company, 177 South Wayfield, #3, Orange, California 92666. Eleven different faces are offered.

In the news, I am delighted to report that the Kappler Lumber & Mill Company will continue in business as Frank would no doubt want. Not only are they in business, but they've already developed a new pallet in HO worthy of the wood wizard himself. They pledge to continue adding to the line whatever new products they can manage.

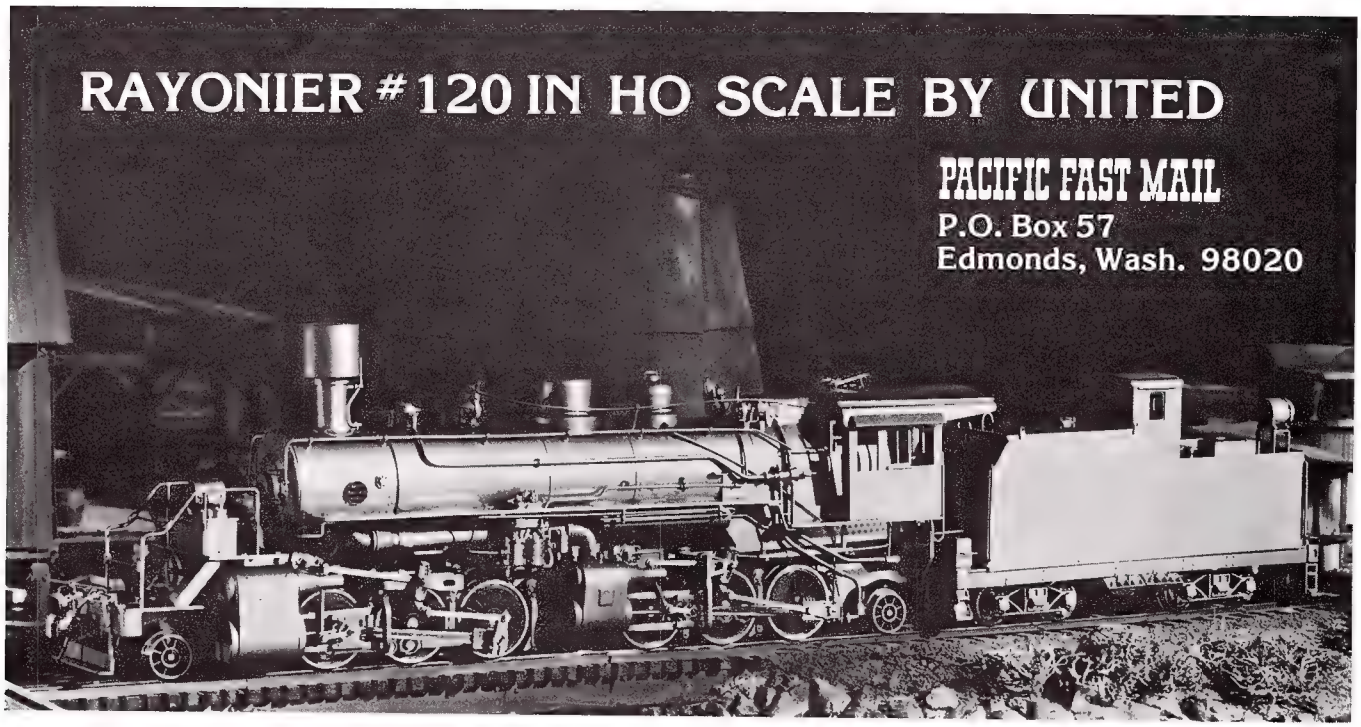
In the book nook, the Rocky Mountain Railroad Club reports great success with their recent ad in the **GAZETTE** for Mac Poor's *Denver South Park and Pacific* reprint. Hopefully with this encouragement, they will consider republishing their other out-of-print books. Sundance Publications has finally released Volume II of *Two Feet Between the Rails* which brings the stories of the SR&RL to the mid-1930's when it was abandoned. I was also glad to hear that Sundance is still offering its calendars featuring full color views of various narrow gauge subjects for $5.00 from Sundance in Silverton, Colorado.

Greenberg and Nash, or "Rusty and Dusty from Weathering Heights", have some nice stuff coming, not the least of which is a new book of using parts from many sources to create a needed item, such as vehicles. These guys do wonders with almost anything. Talent, real talent. Makes you envious . . .

The Rocky Mountain Railroad Club will be sponsoring a steam excursion behind UP4-8-4 #8444 from Denver to Sterling and return on July 26, 1980. Cost of ticket is $48 round trip. Support your local steam engine.

Next time you go grocery shopping keep an eye out for Borax or Borateen at the soap counter. U.S. Borax is once again offering as a promotion its ¼ inch 20 mule team wagon kit. This must be the bargain of all bargains, for with a coupon it is only $1 which barely covers postage. One of my fondest childhood memories is owning one of these wagon kits in all its blue plastic glory which had been assembled unpainted by my father and mounted on a varnished piece of plywood. I thought it the ultimate in detail. Of course, for the scale modeler these kits are an endless supply of wagon parts as well as mules. I'm sure a letter to U.S. Borax, 8075 Wilshire Boulevard, Los Angeles, California 90010, with the top from a Borax product and a dollar for postage should allow you to obtain one of these kits.

Charlie Getz
845 Ridge Court
South San Francisco, CA 94080

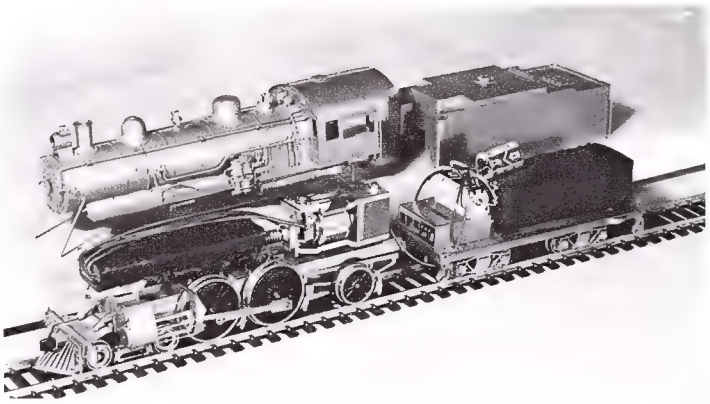


If you had your 'druthers' . . .

Would you really divide your railroad up into electrically separate "blocks" so that you could run more than one locomotive at a time . . . or would you use a handheld controller that worked as if it were wired directly to the locomotive, no matter how many others were running?

Would you really use console-type sound generators, one for each loco in operation . . . or would you outfit each loco with its own, unique sound, and operate the bell and whistle from the same handheld device used for speed control?

Would you really spend more money to do things the old way . . . when the new way does more, better?



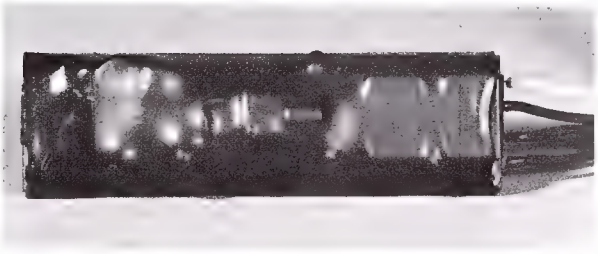
An ONBOARD throttle and sound unit, installed in a Westside Model Co. HO scale UP 4-4-2. The end-ported speaker is made by Knowles Electronics, Inc.

The ONBOARD handheld controller serves two locomotives—of the ten that may be operated simultaneously by the system. Any number of easily wired jacks for connecting the unit may be located around the railroad.

Well, you DO have your 'druthers':

The ONBOARD system of locomotive sound and control utilizes constant dc voltage on the track. Signals generated by handheld, walkaround controllers are superimposed on this. Throttles mounted in the locomotives respond to "UP" control signals by increasing the motor voltage toward full forward, while "DOWN" signals cause change toward full reverse. The throttles provide pulse power at low speed and pure, filtered dc at full speed, thereby producing smooth starts and low-speed running —while preventing motor overheating at higher speed.

ONBOARD sound synthesizers are powered from the constant voltage on the track, and are contained in packages 0.7 x 0.9 x 2.5". The diesel sound unit provides variable RPM exhaust, six switch-selectable air horn chimes, and bell. The steam unit provides air pump, optically synchronized exhaust, a three-chime steam whistle, and bell. All ONBOARD sounds are faithful reproductions of the real thing, containing all the notes, harmonics, and noise of the prototype.



The ONBOARD throttle, shown full size. This unit is rated at 1 Amp. For large O scale locos, 2 Amp and 4 Amp versions are available.

The ONBOARD system is the only one available anywhere in the world that "has it all together":

- **independent locomotive control**
- **steam and diesel sound**
- **constant lighting**
- **affordable price**

Shouldn't you find out more about this remarkable system?

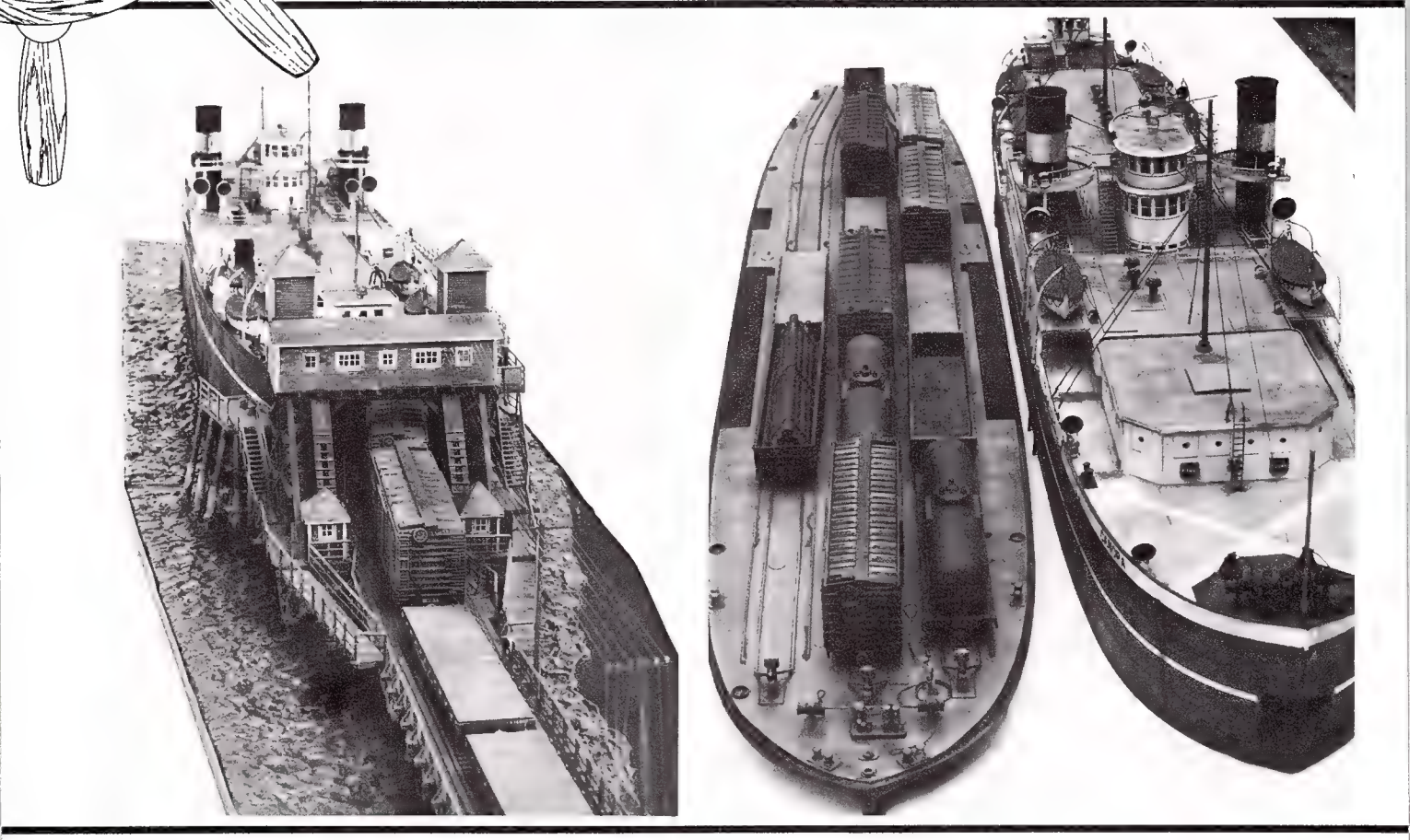
For a thirty-five minute cassette recording of ONBOARD sounds and a description of how they are accomplished, a catalog and price sheet, and a coupon good for a $5 discount on your first purchase of ONBOARD equipment, send $5 to:

KELLER ENGINEERING
200 San Mateo Avenue
Los Gatos, California 95030
(408) 395-3424

ONBOARD SOUND & CONTROL

A CAR FERRY to

Part II **by Brian D. Pate** **Photos by the author**



In Part I of this article in the May/June **GAZETTE** *the author described how he gathered the data necessary for building this prize-winning ferry.*

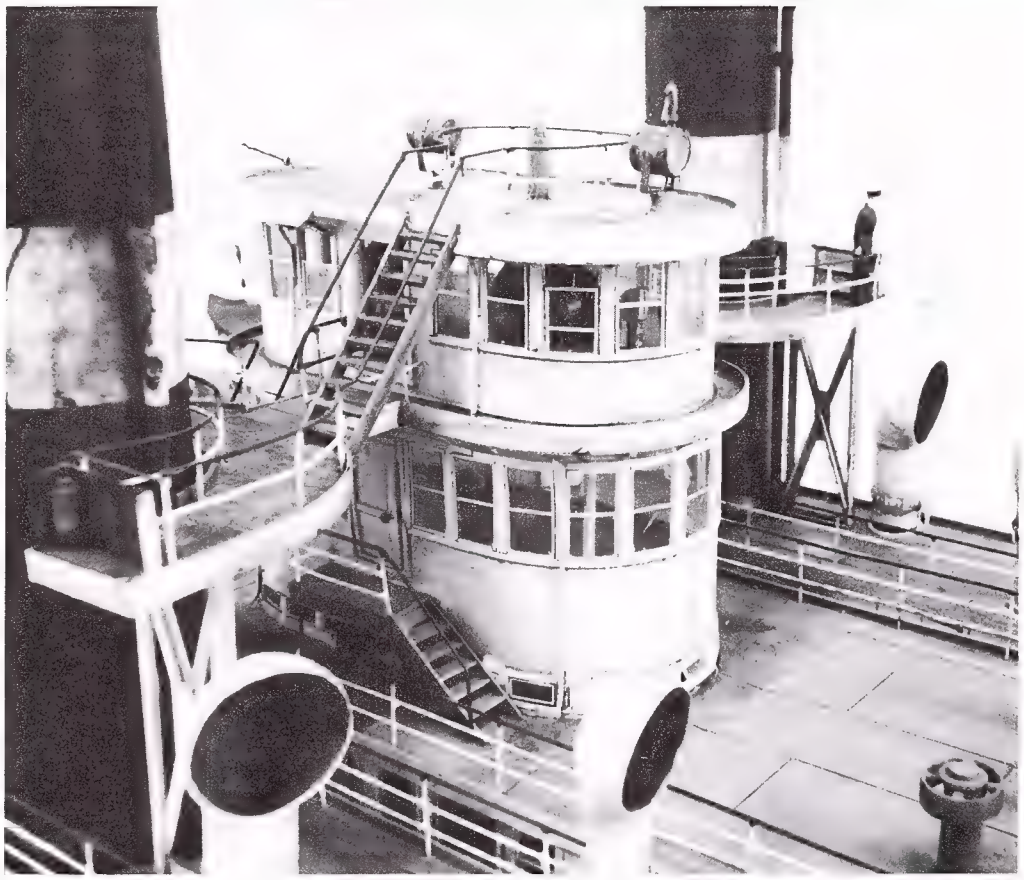
After the planning and data collection I finally began the Canora in 1975. I planed down and carved a slab of red cedar to form the hull. I did just the car deck-level down to the water line and installed temporary tracks. I docked the hull in the ferry slip to check that the track and the car-loading operations all worked. They did; indeed, shuffling cars off and on the ship under control of the local card-order system proved to be so much fun that nothing much else happened on the model for a while.

Then at Christmas in 1977, I took myself in hand and began the superstructure. I bought two 4-foot by 8-foot sheets of styrene. One for the superstructure sides and decks was 40 mils thick. The other, 20 mils in thickness, was used for much of the rest. I also used smaller quantities of thinner styrene stock. Most of the styrene to styrene joints of the main structure were made with methyl ethyl ketone (MEK) and some with tube-type styrene cement, which was also used for styrene to wood joints. Metal to metal joints were soldered, while metal was joined to styrene with epoxy or ACC. ACC was used for most of the fine detail work.

While the model has no interior detail from the level of the car deck down, from that level up an attempt was made to build the model pretty much as the prototype was constructed. The whole of the interior of the superstructure from the car deck to the shelter deck was framed with 20 mil styrene strips cut with a paper cutter. I used the photographs taken inside the prototype hull to make my framing like that of the prototype. The ship was flush-rivetted, and where rivets showed on the prototype, these were impressed into the styrene by means of a NWSL rivet press. Rivets are noticeable on the trunking at the sides of the superstructure between the car and shelter decks, on the chain lockers at the same level towards the bow, and also in the stern-gate area and its superstructure.

The prototype had 5 separate water systems and these are all modeled with several sizes of wire. The water systems were: 1) and 2) hot and cold not potable fresh water for washing in the cabins; 3) potable cold water for drinking; 4) salt water for toilet flushing, and 5) a separate salt water system for the fire hoses. In addition there was a sewer system from the toilets, baths, and hand-basins and sinks. All of these separate water systems are visible on the underside of the shelter

go with a FERRY SLIP



Far left: The Canora model docked at the Point Ellice ferry slip. Cars are being loaded into the starboard track on the ferry, with "reacher" flat cars used to keep the weight of the locomotive off the hinged screen.

Left: The disassembled model showing a partial load of freight cars. The black areas at the sides of the car deck are where the trunking at the sides of the superstructure plug in.

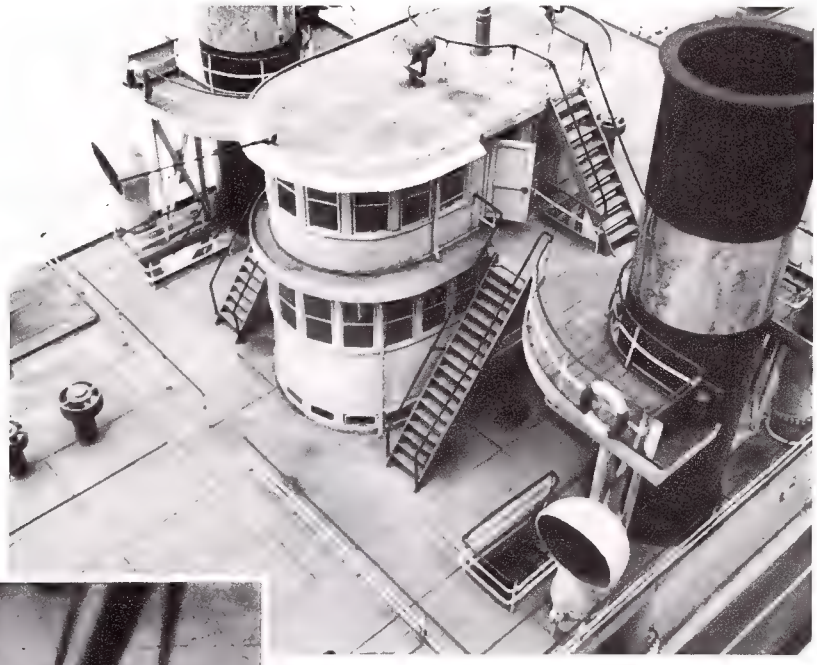
Right: A rear view of the pilot house and bridge, with the First Lieutenant watching the docking from the bridge-wing. The steering wheel and engine-room telegraph are visible in the pilot house. Notice the soot running down the twin stacks; the far one has the ship's whistle mounted on it. The skylights below the observation cabin light the dining saloon.

deck. A full complement of fire hose cabinets with hoses made of flattened solder is found on the car and shelter deck levels. The fire hydrants, made from wire, insulation and disks of styrene, are painted red.

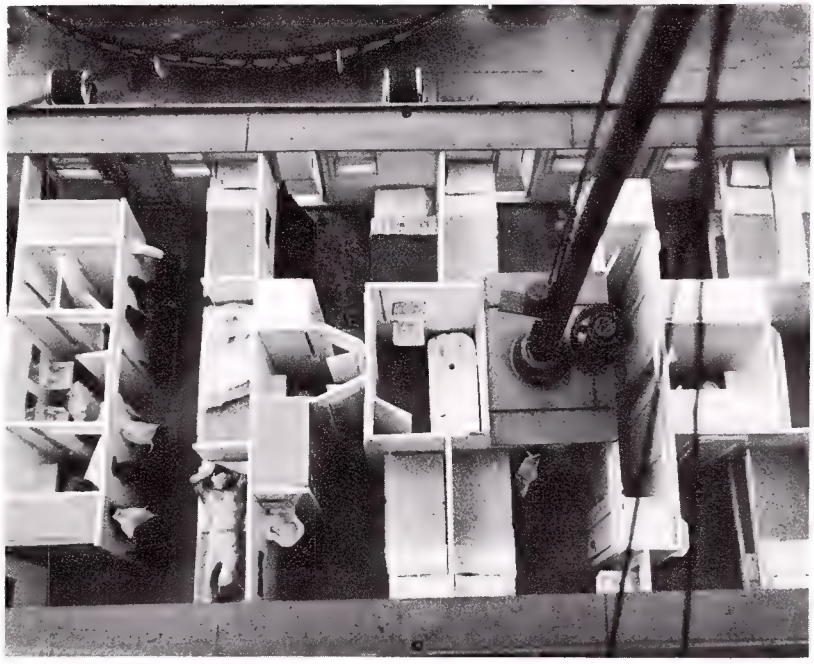
The other major detail within the hull structure is the steering system. This runs from each of the two steering wheels made from wire and ABS plastic in the pilot house down through gearing connections made from wire and styrene at the observation cabin and shelter deck levels, through to the underside of the shelter deck, where rodding made from wire and insulation runs to each end of the vessel and then down through the car deck surface to connect to the rudder systems at each end of the vessel. Also at the car deck level are the bottom end of the davits made of brass rod for the rear four lifeboats, the trunking made of ABS tubing for the various ventilation systems running from the ventilators on the shelter deck level, as well as the trunking in which the flue gases run to the twin funnels. Towards the bow of the car deck are found chain lockers, which receive the chain from the anchor winch above, and a winch system made of clock gears, wire, brass tube, turned brass and styrene. The winch system handles mooring lines and lines to move cars on the car deck, and supplies power to the anchor and cable winch at the bow of the shelter deck level.

The rail system on the car deck is printed circuit board and can accommodate twenty 40-foot cars of normal height but not modern hi-cube cars. In addition to the shiny running rails (code 55, nickel silver), an adjacent set of tiedown rails (code 40) was also installed. Chain and toggle latch systems were used to immobilize the cars during shipment. The rail system is modeled as it would appear when the vessel was ready for loading. A rudder locking-pin mechanism was used to immobilize the rudder at the forward-going end of the vessel. Emergency tiller fittings appear at both the bow and stern of the car deck.

On the shelter deck level, the exterior details modeled included the working stern gate together with its associated winch and cable system, the rear mooring winch and fair lead, the forward anchor and mooring winch system together with twin fair leads, and bollards fore and aft for securing mooring lines passed through adjacent fair-leads. The big scoop-shaped ventilators turn as do the prototype's to face the oncoming wind and were modeled from shim stock, modelers putty and ABS tubing. The lifeboats in their davits were assembled from styrene strip and pieces. They are in the stored position, with their



The pilot house above the observation cabin, and the flights of steps leading first up to the bridge, and then up to the compass on the pilot house roof. Notice the lifebelts and navigation lights on the bridge. The ventilators on the deck at left service the captain's suite.



The crew's accomodations in which groups of cabins share washing facilities and toilets. One stoker is washing at left while another relaxes off-duty in his bunk. Top center is the Chief Engineer's cabin with somewhat more luxurious features.

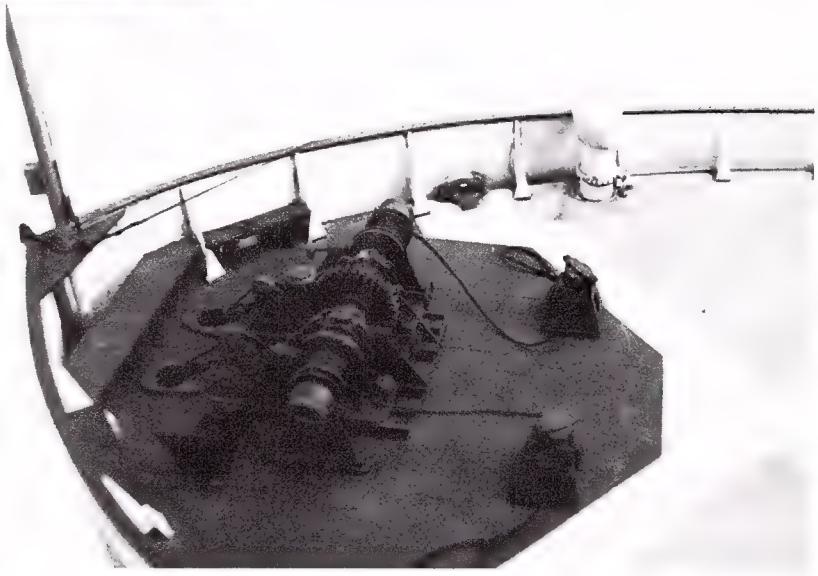
canvas covers made of Kleenex installed. Each davit has two three-part sheave systems crafted from ABS and ropes of nylon thread. The ropes were used by the crew members to slide down into the lifeboats when they were launched.

The interior details of the cabins on the shelter deck level are best listed starting at the after end and working forward. There is a cabin for six oilers with six bunks, two wash basins, a toilet and a shower all made of styrene and ABS. This cabin has full bedding made of felt and Kleenex, hung up clothing made of Kleenex and pictures cut from magazines. Mirrors made of aluminum foil are hung up where appropriate. The cabin for the Chief Engineer has a red blanket. An adjacent cabin for two junior engineers has a bath, toilet, two wash basins, bedding, a sofa, carpet and more pictures and mirrors. A set of four cabins for the first and second mate, two cooks, two lookouts and two wheelsmen have similar washing and sleeping facilities. Two cabins for two stewards and two boys have similar facilities. All cabins have light switches and conduits made from wire and styrene, plus door knobs made from melted fiber optics on all doors. All doors swing on hinges made of contact cement.

Forward of the transverse covered passageway there are three messes. One is for firemen, one is for deckhands and one more opulent one is for the officers. These feature details such as tables, seats, dish cupboards, dishes and cutlery on the tables. Wine bottle lead and wire makes excellent dishes and cutlery. There are pictures on the wall and paper place mats for the officers. An insulated freezer room has hung up meat made from model putty and ice blocks made of lucite. Next to that a storeroom has sacks, cans and boxes of supplies. Forward of that is the galley with a coal-burning stove, a supply of real coal, food made of putty and ground foam being prepared on the two counters. Each counter has a sink and cupboards, dishes, kitchen implements of wire and hung-up aprons of Kleenex. The galley cockroaches are made from fine seeds. Forward of the galley is the dining salon which features two tables set for twelve, together with twelve seats, and large wall murals. The doors between the galley and the salon swing in opposite directions, on either side of the dresser which held the supply of cutlery and crockery for the dining salon. Light was admitted into the dining salon by skylights at the base of the observation cabin structure, and by light wells which admitted daylight to the windows on either side of the dining salon and kitchen. The windows are constructed of 5 mil transparent styrene with drafting tape frames.

Forward of the observation cabin are the Captain's quarters including the Captain's bedroom with a bunk and full bed-

The rear side-deck details, including double hung windows and doors with ventilators and door-knobs. The line of ventilators either side of the mast service the crew's ablutions, while those forward are over the galley. Notice the hoistable navigation lantern on the mast, with the halyard cleated below it.



The shelter deck at the bow prominently features the anchor winch which is driven by a steam engine on the car deck below via a vertical shaft. Like all the winches aboard, this one is multi-functional, and also handles the steel mooring cables, through the fairleads. Fairleads have pulleys on stand-offs on the deck, and at the apertures where cables pass through the hull sides. Notice that the anchor chains disappear into the hawse pipes through heavily reinforced plates at deck level. The anchors are prevented from dropping by the hook shaped "stops" hooked into the chain just beyond the winch. I never did find out why the white cross-shaped pattern was painted on the deck. It was there in the early thirties and also in the present era.

clothes, a sofa, a chair and table, with a carpet. The Captain's office has a desk, chair and cupboard and chart table with a chart of the area in which the vessel sailed. I cut this chart from a magazine. The Captain's bathroom has a bath, toilet, and wash basin with mirror. The wireless room has wireless equipment, a note-pad and a seat of styrene and paper. The Pursers' cabin has bunks, clothes' closets, and carpet.

The remainder of the interior of the shelter deck cabin area was left open, and unfurnished, as it was on the prototype, following the refit of 1919 when passenger accommodation was removed.

In the two areas at the shelter deck level underneath the funnels, in addition to the flue space, there were storage and check rooms, and flights of stairs which led from the shelter deck down to the car deck. These flights of stairs are modeled and visible through the outside windows and also from below from the car deck level.

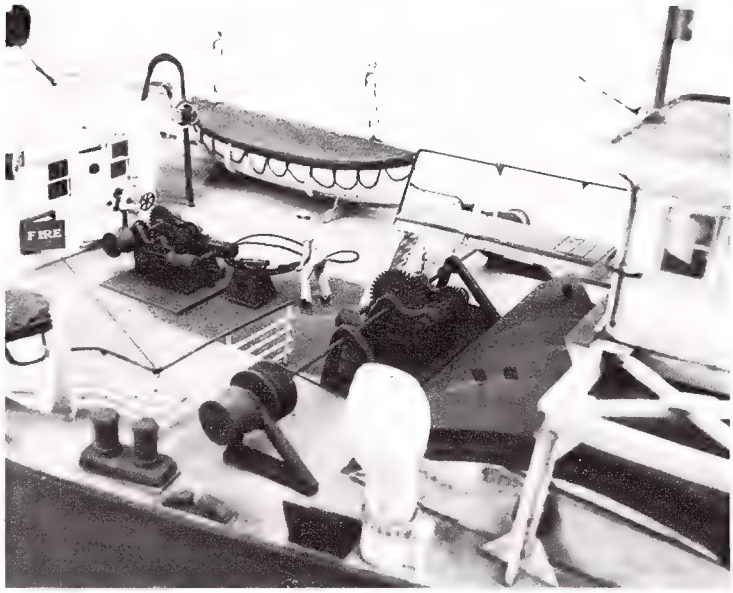
Above the shelter deck level is the observation cabin level, there details include flights of styrene steps to the observation cabin and to the bridge and the observation cabin itself, which was left vacant and unfurnished following the refit. The brackets which supported the bridge ends are fabricated from styrene shaped like angle iron.

At the pilot house level above there are the bridge extensions, leading on each side to navigation light structures of painted lucite rod. These were lit appropriately for the direction in which the vessel was steaming. Inside the pilot house are to be found the two steering wheels, each used appropriately for direction taken. Each steering wheel has its binnacle (or compass enclosure) made of brass tubing. There is also an engine room telegraph made of brass tubing, and a whistle cord leading to the brass tubing whistle on the starboard funnel. The funnels themselves are made of aluminum tubes with styrene additions and carry pipes leading from the steam safety valves on the boilers below the water line.

The pilot house roof carries two spot lights and a compass for taking bearings, all made of brass tubing and strip plus styrene.

Finally, at the rear of the vessel, over the stern gate, is the Mate's Docking House, from which the Mate controlled the approach to the ferry slip, by means of an engine room telegraph which is modeled.

The rigging of the masts is attached to anchor points, many of which have a brass tubing turn-buckle to control rigging tension. The masts are made of tapered dowels and have some fixed navigation lanterns made of lucite rod. The navigation lanterns could be hoisted to indicate the direction in which the vessel was proceed-



The rear of the shelter deck, with two crew members securing the mooring cables. To the right below the Mate's docking house can be seen the stern gate cylindrical door in its retracted or open position. The winch system with the transverse shaft just forward of this is the mechanism by which the door is pulled up by cables.

The hull interior amidships, showing the stairs to the deck above, and the open hull door with its toggle-hinge system. Attached to the roof are the several independent plumbing systems, lighting conduits, and the steering system shafts. Adjacent to the door in the side-deck structure is a fire-hydrant painted red with a section of the plating around it also painted red. Next is an open rack containing the fire hose.

ing. The fore and aft flagstaffs are made of dowel and have flag halyards of nylon thread.

Throughout the vessel, as modeled, crew members modified from Preiser figures are engaged in backing the vessel into its ferry slip. Thus the rear steering wheel is manned by a steersman, supervised by the Captain (both in the Pilot House). The First Lieutenant is on the bridge observing the docking operation from there, while the Mate is controlling speed from the Mate's Docking House. Deck hands are preparing for securing mooring lines, while the car deck crew is waiting for the docking maneuver to be completed. Most of the rest of the crew is presumably below the car deck servicing the boilers and engines, but some off-duty crew members are visible in their cabins.

The model boat was painted in colors appropriate to the period modeled, using Floquil paints, generally sprayed on with an air brush. Some of the colors, particularly the ventilator and mast color and the deck surface color, required Floquil paints to be mixed. The vessel name and the lettering on the fire hose cabinets are dry transfer letters. The "No Smoking" signs on the car deck level, as well as "S" signs indicating the location of scupper valves, are from decals, printed from my own art work by Ken Griffiths of Vancouver. The superstructure was weathered and, at the same time, the scored junctions between the plates of which the vessel was built were accentuated with artists oil colors, in black and white and rust. The photographs of the vessel taken between 1976 and 1979 were used as a guide to the weathering procedure, although earlier in her career, at the time modeled (the 1930's), she would have been less heavily weathered and certainly the paint would have been in better condition than in 1979. The model's weathering was an attempt to represent her likely condition during the 1930 period.

The portions which are especially rusty on the model are those where abrasion of the paint would have occurred. These areas include fairleads through the hull where mooring cables were passed, the winch surfaces upon which cables were attached and coiled, the ends of downspouts where rain water would have caused accelerated deterioration, and generally on horizontal deck surfaces where salt water from spray would have stood for extended periods. On the car deck level the paint would have been more rapidly worn away by the activities concerned with loading, securing and unloading railway cars, and this area is shown more heavily rusted than the outside deck surfaces. Some of the plumbing, to be found on the underside of the shelter deck (that is the ceiling of the car deck) was observed on the prototype to be particularly rusty, and was so weathered on the model. In particular, these areas are where drainage lines from the toilets, baths and wash basins penetrate the shelter deck surfaces.

The other part of the prototype where abrasion of the paint surface was particularly severe is on the "wale" or rubbing strip around the outside of the hull at the car deck level, where collision with pilings when approaching ferry slips generally kept these areas free of paint. Thus on the model, these areas are particularly rusty.

All of this construction took until July, 1979, in an increasing crescendo of activity as I attempted to be ready for the Calgary Convention model contest. Finishing touches were added in several of the campgrounds between Vancouver and Calgary, and indeed the paint was still tacky in places when the model was entered in the competition.

The model won handsomely in the Calgary contest, and we drove back from Calgary floating two feet off the ground. Installed on the layout, docked at the ferry slip, she is proving quite an operational challenge, since loading and unloading operations are largely done blind, inside her dark cavernous hull.

Part 5: The Locomotives of Phillips

by Bob Brown
Photos from the L.B. Walker collection

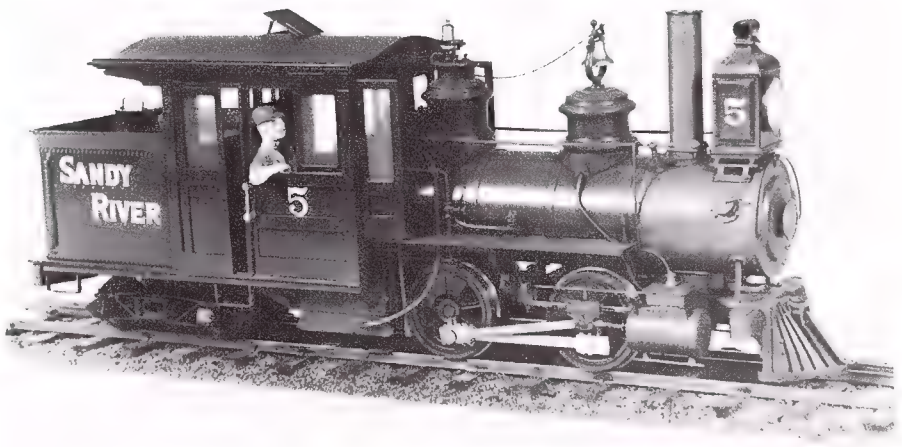
The Forney as built by Hinkley or Portland and as exemplified by Sandy River #1 has always been my favorite locomotive type. SR #1 is used as the **GAZETTE's** masthead locomotive and she graces our business cards. To me the Forney is the large cab, the small boiler and the tall cap stack. The large headlights and small drivers add charm to these beautiful machines.

This Part 5 of "Building Phillips" is an album of locomotives that could have been seen in the Phillips yard. Some of the locomotives shown are different versions of the same engine but with a different number or on a different railroad. Of course all these machines could not have been on the Phillips scene at the same time. And some of these locomotives were gone by the time of the first Phillip's enginehouse fire in 1897. Since I am modeling Phillips in 1897 I feel that any locomotive that could have been on the property before they should be in my album.

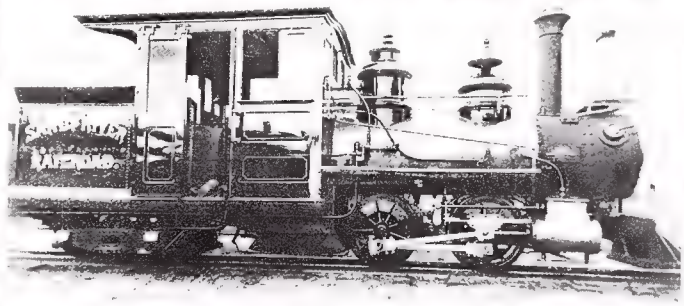
The Phillips yard was used by both the Sandy River Railroad and the Phillips and Rangeley Railroad. Franklin and Megantic engines would also be seen in Phillips. I have selected photos of the engines that existed before 1897 on these three lines. I have tried to show each locomotive in every different numbering up to 1897. I am not sure of the date on many of the photos; some may have been taken after 1897.

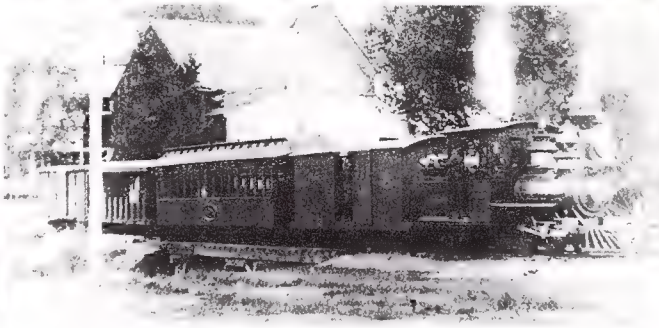
My own roster for Phillips consists of a scratch-built Forney I built about twelve years ago. It is not a model of any particular locomotive and I will keep it in one of the back stalls in the enginehouse. I have a Custom Brass On2 Forney rebuilt by Kelley Morris. Kelley smoothed out the mechanism, added track wipers, a PFM sound unit, a backhead, and a crew. He painted, weathered, and lettered the model for SR #5.

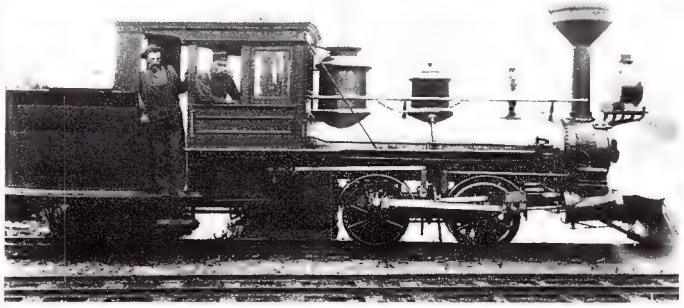
In the next installment I will describe the structures on Phillips.

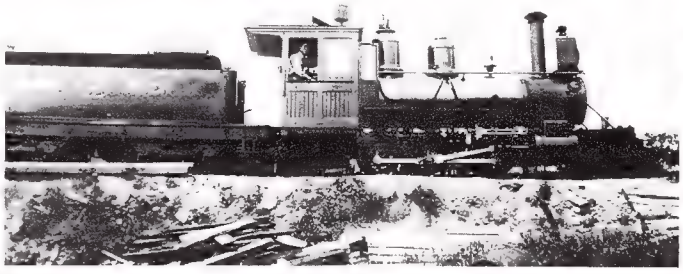


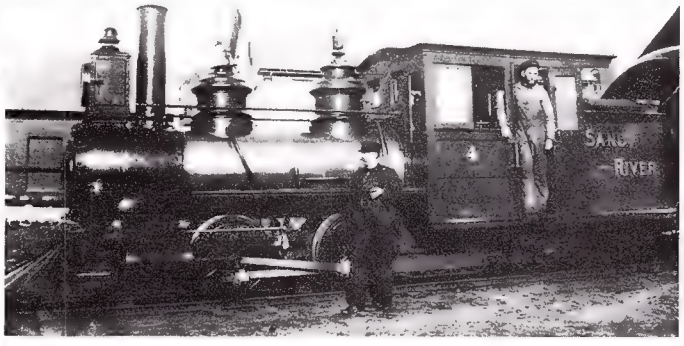
This NJ International On2 Forney was rebuilt for me by custom builder Kelley Morris. The model was changed to be as close to Sandy River #5 as possible. The pilot deck and pilot were changed, link and pin couplers were installed, the running boards were cut back, the cab front doors were opened, a large square headlight was added, and the cab side doors were moved to the outside of the cab like the prototype. There were several other changes made such as machining correct profile crank pins. The locomotive was fitted with a can motor and the drive was worked over. A PFM sound system was installed with a Gordon North Cam which was machined by Charlie Eckstein. The model was painted, lettered, and lightly weathered by Kelly. The model had Taurus track wipers installed.

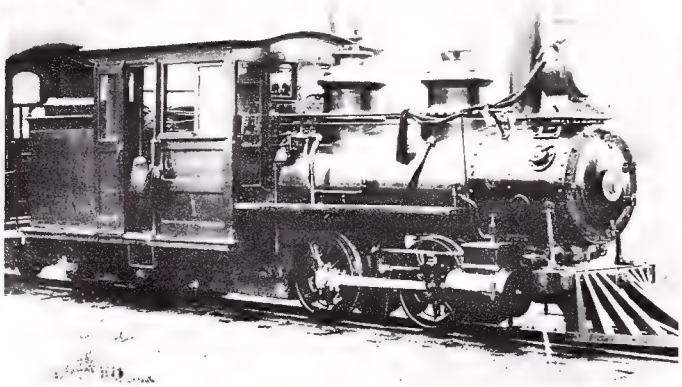


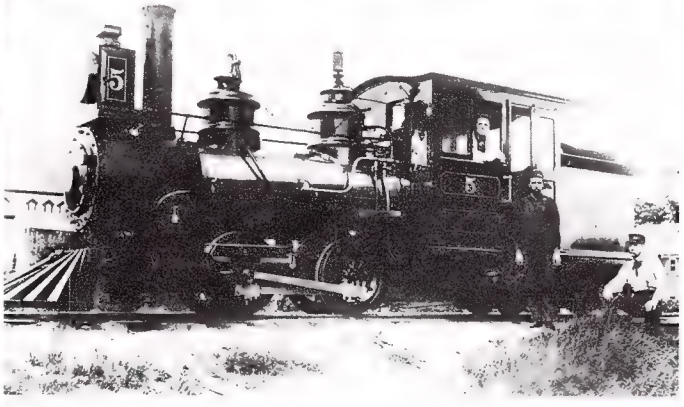












Left top to bottom:
Sandy River #1 in pristine condition. The SR shopped and painted its locomotives every year in the early days. This is one of the things that attracts me to the early Sandy River scenes. This locomotive is the Bellerica and Bedford's "Ariel". She was built in 1877 by Hinkley as a cab-in-front loco. The SR had the engine turned around and the boiler extended before putting her to work on the SR.

This ugly duckling was built for the Sandy River by the H.K. Porter Company in 1883. It was used in construction and was sold in 1893 to the Wiscassett & Quebec as a construction engine.

Sandy River #4 in Russian Iron at Farmington, Maine. This locomotive was built by Portland in 1890.

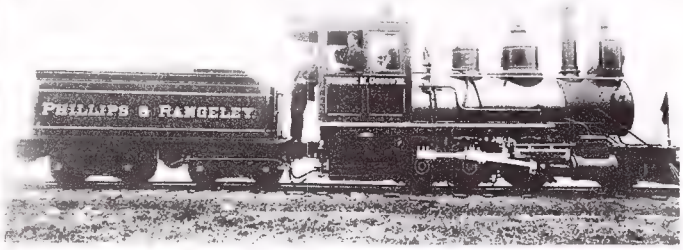
All decked out and ready to go. This beautiful photo shows the Sandy River's #5, the "N.B. Beal". She was built by Portland in 1891.

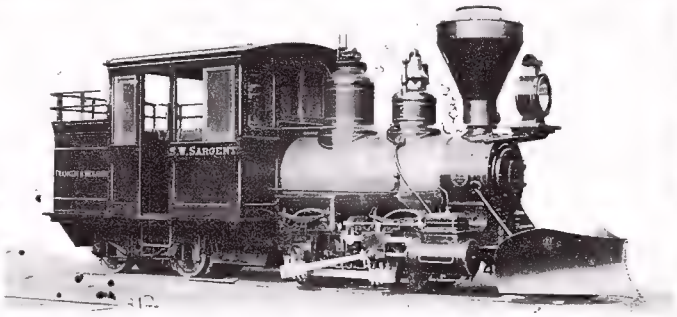
Right top to bottom:
Sandy River #2. This locomotive was the B&B "Echo" and was built by Hinkley in 1877. She was also shopped and modified before coming to work on the SR. This locomotive later became Phillips and Rangeley #4. This old photo also shows some of the rolling stock I will have to build for Phillips. The first car is ex-B&B boxcar A. It is followed by the ex-B&B coach "Sylvan", an open excursion car, and an ex-B&B box car.

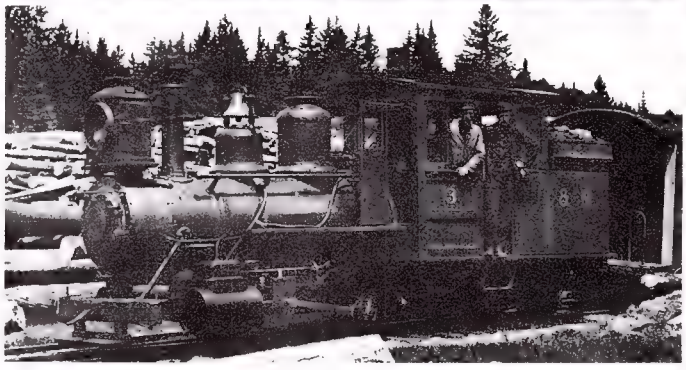
This beautiful Mogul was built by Baldwin in 1893 and was the Sandy River's second #2. The lettering used on the Sandy River line varied from shopping to shopping. The circled number on the tender is unusual.

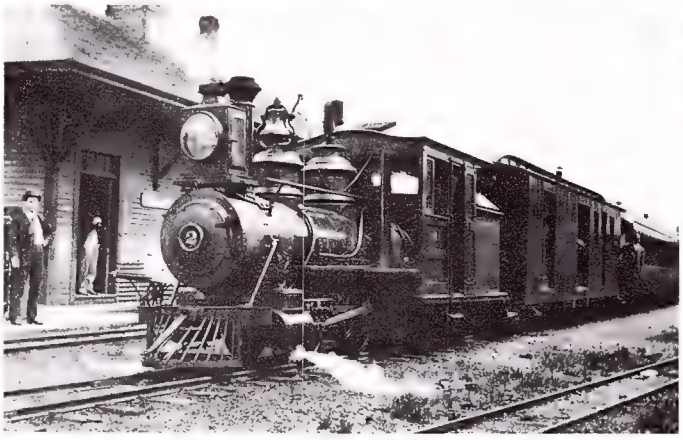
Phillips and Rangeley #1, the "Calvin Putnam". She is decked out in black crepe for Calvin's funeral. This Forney was built by Portland in 1890.

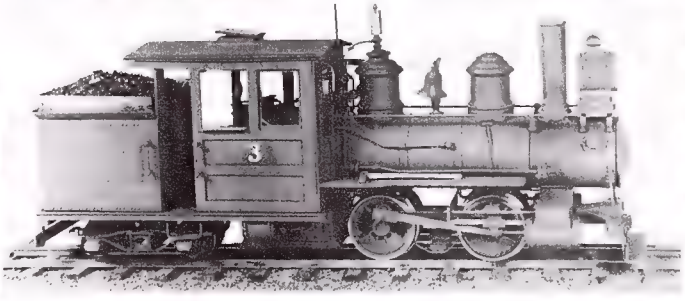
The Phillips and Rangeley's first #2. She was named the "Issac Walton" and was built by Hinkley in 1877. She is the ex-Sandy River #2 (ex-B&B "Echo") and later became the P&R's #4. Here she is new at Rangeley.











Left top to bottom:
This little beauty was built by Baldwin in 1891 and came to the P&R as their #3. Here she is fresh from the builder and ready to go.

The Phillips and Rangeley's second #2 when new. She was built by Baldwin in 1893 and was the largest two-footer built up to that time.

Phillips & Rangeley #4. She is ex-B&B "Echo", ex-SR #2. She was built by Hinkley in 1877 and was called the "Bo Peep" on the P&R. The photo shows #4 with an open excursion car.

Franklin & Megantic #2 at Phillips. I think this is the F&M's "V.B. Meade" and was originally F&M #1. She was out-shopped by Hinkley in 1884.

Right top to bottom:
A builders photo of the "S.W. Sargeant". She was built by Baldwin as F&M #2 and later became F&M #3. This was the first outside framed two-foot locomotive. She was built in 1886. *Photo, collection of H.L. Broadbelt.*

The F&M #1, the "V.B. Meade" at Strong, Maine. She was built by Hinkley in 1884.

F&M #3 ex-"S.W. Sargeant." She was built by Baldwin in 1886.

My scratch built Forney. This model was built for my Wiscasset scene and runs well considering it was built about 12 years ago. The model has a scratch-built cylinder block, tender truck, pilot, and frame and superstructure. I also made the gearbox and turned the drivers.

Bill Williams of Santa Rosa, California, pointed out a terminology error in my last Phillips article. I used the term web incorrectly. The web of a rail is the vertical portion between the head and the foot of the rail. I should have used the term base rather than web.

BUNGS, FIRKINS and TERNEPLATE:

A Short History of Barrels and Steel Drums

by Robert F. Schlechter
Senior Packaging Technology Engineer

The following article was received in response to Dick Divald's question (March/April Pigeon Hole) regarding the history of the oil drum. Ed.

A barrel differs from a drum in being bulged. Other relevant terms are *cask,* which is a large tight barrel; *keg,* a small tight barrel of 10 gallons or less; *tierce,* a barrel of 42-gallon capacity; *firkin,* a tub that holds 56 pounds of butter, but strictly speaking, a *tub* is smaller than a *firkin* and holds only about 4 gallons. A *pail* is larger at the top than the bottom and, by definition has a handle or a bail for carrying; a *kit* is an upside-down *pail* that is smaller at the top than the bottom.

Barrels

Originating more than 2,000 years ago, barrels embody several sound engineering principles. The staves are arched in two directions, forming the ideal shape for maximum strength. The bulge (also known as the bilge) makes it easy to roll and to up-end the barrel conveniently. The flat ends provide a stable bottom for storage, and the hoops may be worked toward the bulge to draw the staves together and make the barrel leakproof, at the same time locking the head into the grooves in the staves. A barrel is a container on "wheels". It can be rolled easily by one man, and because of its bilge it pivots readily and can be guided in any direction. Up-ending is accomplished by rocking back and forth on the bilge, and the chime provides a convenient handle for giving the final tug to put the barrel on its end.

Barrels are generally divided into two classes, tight barrels to hold liquids and slack barrels for dry products. Tight barrels are usually coated on the inside, depending on the type of product to be packed. Wax is often used as a lining material for aquaeous products, silicate of soda for oily materials, and glue for alcohol-based liquids other than food products.

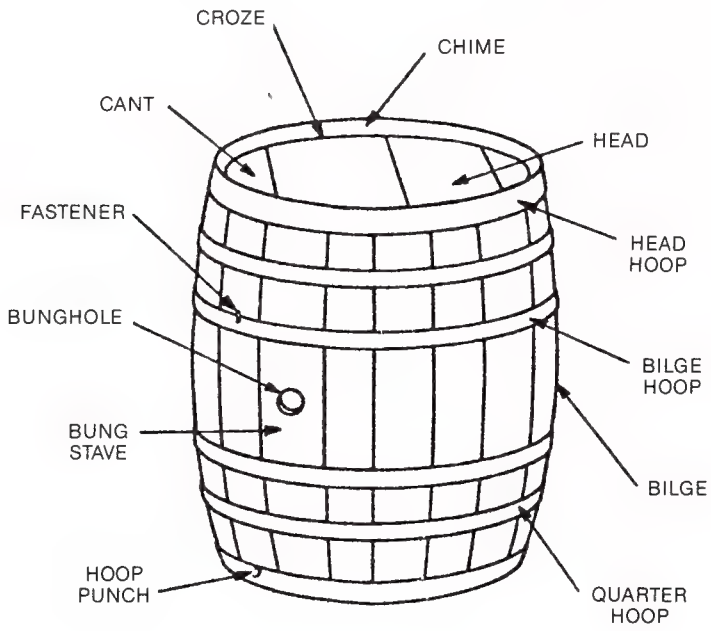
The selection criteria for construction materials depends on the proposed contents and availability of materials. The staves may be made of many varieties of wood, and the choice is largely a matter of the most economical type for the job. One word of caution, however, in the case of food products: certain kinds of wood, particularly in the pine family, may impart an undesirable flavor or odor to the contents. On the other hand, oak may be the wood of preference for storing certain beverages. Hoops are made of steel, wire, wood, or rope, and sometimes combinations of these.

Some standard barrel designs are identified by their most frequent use, such as the meat and poultry barrel used for meat cuts and dressed birds, usually without a cover. The glass and pottery barrel is similar, but with closed head. Others are known as nail-kegs, apple barrels and so on.

Proper handling and storage of barrels is essential in order to maximize their versatility. A barrel should not be moved by rolling it on its edge or chime; it should be rolled only on its bilge or side; A loaded barrel should not be dropped, for although it is quite strong, it is not indestructible. Slack barrels should be stored on end, and tight barrels on the bilge, with the bung up. Do not remove the head with a hammer, but loosen the top hoop and lift the head out.

To close a barrel, drive the head hoop up about ½ inch all around. The head is started in the croze or groove at one point, and it is gradually worked down into place by tapping with a hammer all around from that point. If the head is in several pieces, start with the middle piece and work toward the sides. The head hoop is then driven down to draw the tops of the staves in tight, and three-penny nails are spaced 6 inches apart, through the hoop and into the head.

To remove a bung, tap the bung stave sharply close to the bung until the bung pops out. If it does not come out easily, use a bung chisel or bung puller. If vent holes are necessary, use a ten-penny nail rather than a drill, to avoid getting chips into the interior. When replacing a bung, have the grain running the same way as the stave or head board. To take the head out of a barrel, see whether one chime is deeper than the other and then take the head out of the end with the thinner chime. First remove the nails from the top hoop and drive the hoop up ½ inch or so. Then tap the head lightly until it falls into the barrel.



The barrel is made in various sizes from 1 to 60 gal. capacity, from different woods and many types of construction. The hoops can be steel, wire, or wood, and the number of hoops varies according to size and type of barrel.

Steel Drums

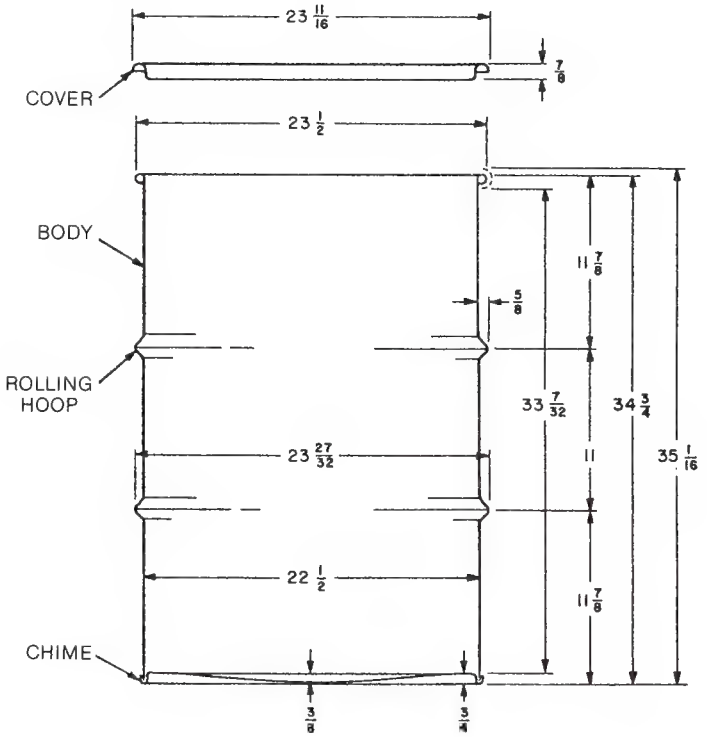
In 1902 the Standard Oil Company started using its Bayonne steel barrel as a substitute for the wooden barrels it had been using. It was bilged and shaped like its wooden counterpart. The straight-sided steel drum, first introduced in 1907, was made of 16-gauge terneplate*, with soldered side seams and soldered chime seams. The need to reduce cost soon resulted in the development of the 55-gallon drum made from 18-gauge steel with welded seams. By 1920 hand painting was replaced by automatic painting and baking of enamel coatings.

Both cold-rolled and hot-rolled steels are used for making drums. Although cold-rolled is cleaner and easier to coat with resin, hot-rolled is sometimes preferred for certain types of treatment. Acid pickling, detergent scrubbing, sand blasting, and shot blasting are frequently used to prepare the steel for fabrication. The bottoms and tops are blanked out of the sheets. Bodies, however, are sheared to size. They are then rolled in a machine until the edges come together to form a cylinder, and the joint is butt-welded. The slag caused by the welding operation is taken off and the joint is flattened so that it is flush with the rest of the body. Flanges, beads, and rolling hoops are then rolled into the shell, where necessary. The lining material is sprayed on the different parts separately, and baked on. The head and bottom then have a seam compound flowed in around the edges and are next joined to the body by spinning the edges together to form a five-layer chime. The outside is then painted, silk-screened, or lithographed.

Steel drums are made in tight-head or open-head styles. Tight-head drums usually have two flanged openings: one 2-inch and one ¾-inch. These are placed at opposite sides in the head of the drum, or one in the head and the other in the middle of the body, or the end of the body, on the opposite side. The openings are threaded and fitted with screw plugs and rubber or asbestos gaskets. Sizes given refer to U.S. Standard Pipe Thread sizes. The small opening is for venting, and the large opening can be used for attaching a spigot.

Open-head drums have a loose cover with a gasket in the channel which is formed around the edge. This makes a tight seal against the rim of the drum. A split locking ring made of 16-gauge steel is provided to draw the cover down tightly on the drum and hold it in place for shipment. The ring is secured by a toggle lever which is wired down or by a nut and bolt which is sometimes fitted with a locknut. The toggle lever is more expensive, but if the drum will be opened and closed frequently, it is worth the added cost. Rolling hoops are formed by pressing out the side wall at two equally spaced points. Although originally intended to provide for easy rolling, they also serve to greatly stiffen and strengthen the drum.

*Terneplate — Sheet iron or steel coated with an alloy of approximately four (4) parts lead to one (1) part tin.



The fifty-five gallon open-head drum has a loose cover with a gasket in the channel around the edge.

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Modifying the NorthWest Short Line Quartering Jig

by Bruce Eaton
Photograph by the author

Lately I have strayed from the sane and sensible pursuit of HOn3 logging railroads. I have developed a temporary infatuation with the 1880's South Park. This led to my rebuilding a PFM Mason Bogie (May/June 1980 **GAZETTE**) and "Cooking" a Kemtron Baldwin. Somewhere along the crooked Colorado Railroad path I was brought up short by the problem of quartering small drivers like those used on Masons and Consolidations.

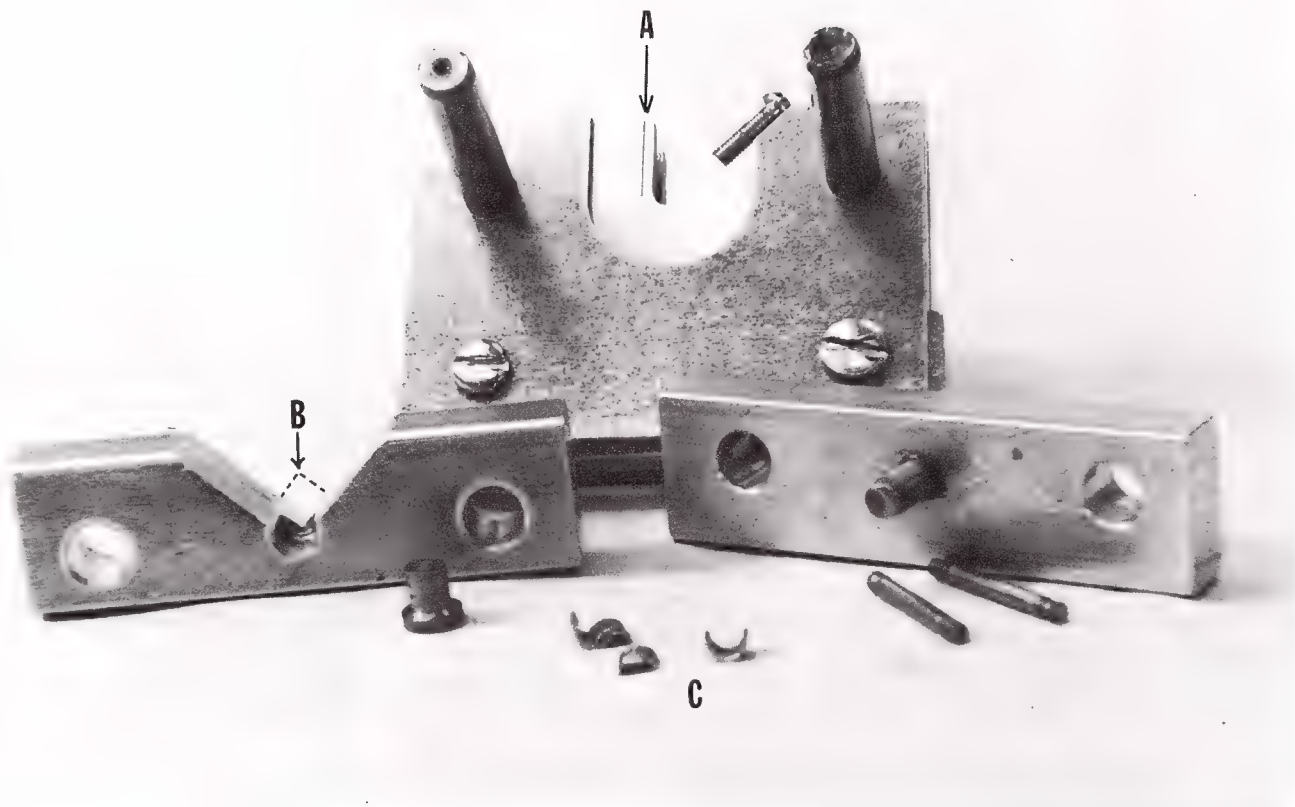
In order to do the quartering easily and with reproducibility I purchased "The Quarter" manufactured by NWSL. To my dismay, I found that the drivers from the PFM Mason would not even go into the jig. The problem was that the Mason wheels have a rather large shoulder around the axle, on the inside of the wheel. The remedy – and first modification – consisted of milling two slots, one on each side and centered on the original axle slots (see A in the photo). I used a 3/16-inch end mill and kept the depth between .010 and .012 inches. If you go much deeper than this you will run into the tapped holes for the retainer screws.

The milled slots allowed the Mason drivers to fit in the quartering jig. However, then I found that when I put the quartering plate in place I could not insert the "index-pins" in the crank pin holes. The obstacle here was the step in the quartering plate which supports part of the assembly pin. The step was removed by milling it out with a large end mill. For this operation it is very important to make sure that the indexing surfaces are lined up parallel to the side and bottom of the end mill. If the alignment is done properly, the surfaces left by the removal of the step will be even and parallel to the original indexing surfaces (see B in the photo). This done I found I had no trouble inserting the indexing pins for any of the small-size drivers.

I still had difficulty quartering drivers with reproducible angles. The axle slot is ⅛ inch wide, and most HOn3 driver axles I have used are 3/32-inch diameter. When the nylon retaining screws are tightened on the axle, it is pushed slightly off center by an amount which varies a bit each time, depending on how the axle rolls and how tight the nylon screws are. A pair of split bushings were cut from brass tubing to hold the 3/32 axles in the center of the ⅛ slot (see C in the photo).

The last thing I did was to replace the nylon screws with brass ones. The nylon screws were probably chosen by NWSL because they would not score axles, and because it would be next to impossible to strip the threads in the jig. I decided that running a slightly higher risk of stripping the threads was a small price to pay for more positive holding power; scoring the axles is not a problem when using the split brass bushings.

After making these modifications I have found that my NorthWest Short Line quartering jig gives me reliable, reproducible results. While I still prefer geared locomotives, I am at least no longer afraid to tackle a rod type locomotive.



An Album of
WEST SIDE SHAYS

by Russ Simpson

Of the original nine West Side Lumber Company Railroad Shays seven still exist and are available to be photographed. Here are some shots showing these Shays over the years and a table giving some key data for the would-be modeler of these fascinating locomotives.

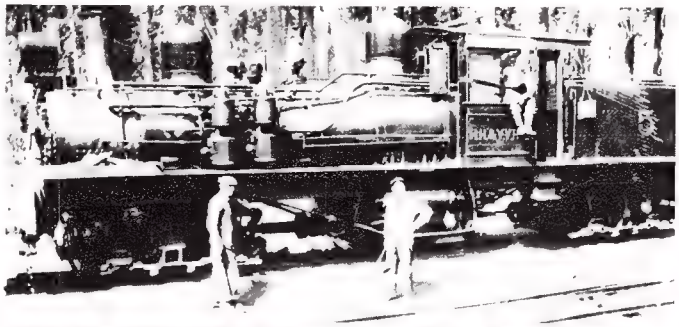
In HOn3 West Side Shay #8 is available from Westside Models all built up and ready to run. Also in HOn3, Precision Scale Company offers #8 as a kit. Check the table and note that the basics are the same for numbers 9 and 10 as for #8. A handful of parts, a different set of decals and you can add two more Shays to your roster – provided you don't mind taking the torch to an expensive model.

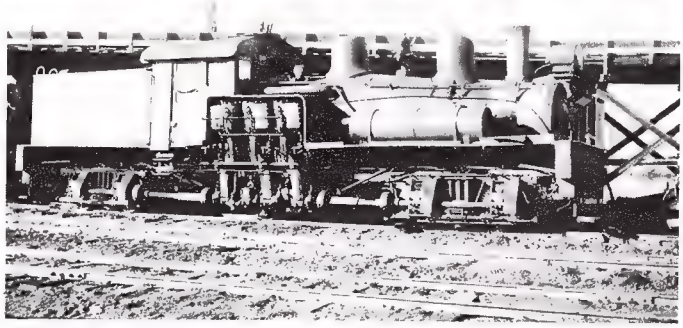
In On3, Kemron, Precision Scale, and The Backshop all make parts suitable for building West Side Shays. Several fine On3 models of West Side Shay #15 have been constructed from Ken Barnhart's drawing in **FINELINES**, May 1972, now out of print. Again, checking the table, note that numbers 7 and 14 have the same basic dimensions as #15. You can use the photos to build a #7 or #14 from the plans for #15.

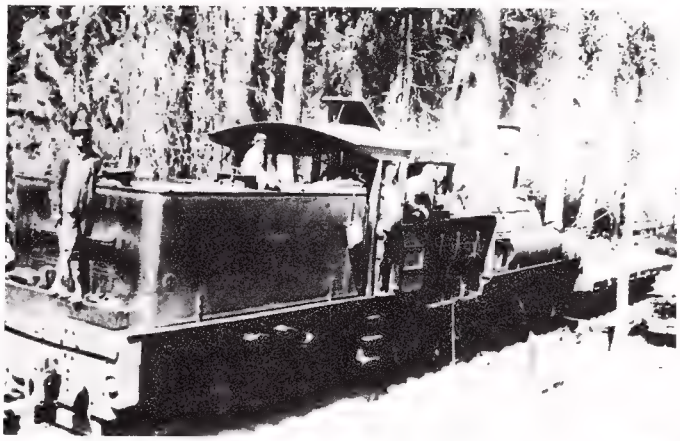
Let us hear from all you out there building West Side Shays. Meanwhile, thanks to P.E. Percy and Nick Bailey who provided the original erection card data for the table.

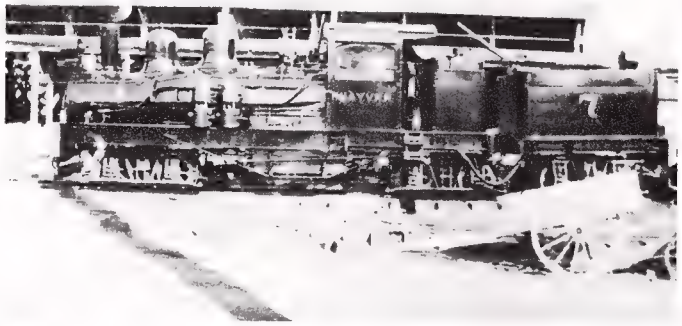
WEST SIDE SHAY DATA

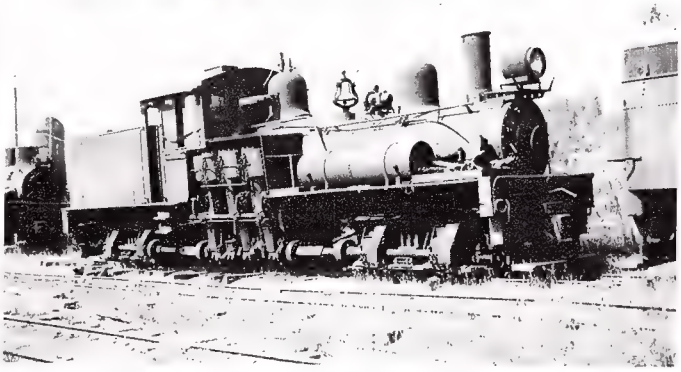
Locomotive	CN	Class	Drivers	Cyls. Bore – Stroke	Boiler OD Front	Rear	WB Trucks	Wheelbase Engine	Wheelbase Engine & Tender	Frame
5	730	50 ton – 2 trk	32"	12 x 12	46		4-4	30-0	—	I-beam
6	817	55 ton – 2 trk	32"	12 x 12	46		4-8	32-8	—	I-beam
8	348	70 ton – 3 trk	34"	12 x 15	50	65½	4-4	29-8	40-2	I-beam
9	369	70 ton – 3 trk	34"	12 x 15	50	65½	4-4	29-8	40-2	I-beam
10	475	70 ton – 3 trk	34"	12 x 15	50	65½	4-4	29-8	40-2	I-beam
7	2465	60 ton – 3 trk	32"	11 x 12	44¼	59	4-4	25-6	35-6	I-beam
14	2835	60 ton – 3 trk	32"	11 x 12	44¼	59	4-4	25-6	35-6	I-beam
15	2645	60 ton – 3 trk	32"	11 x 12	44¼	59	4-4	25-6	35-6	I-beam
12	2835	60 ton – 3 trk	32"	11 x 12	44⅜	46¼	4-4	25-6	35-4	girder

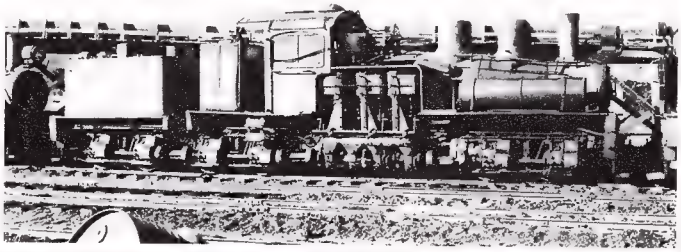












Left top to bottom: Number 5 as she looked in 1906 with her oil-lamp headlight. *Photo, collection of Ted Wurm.*

The left side of #5 showing her two air pumps, new generator, and electric headlight. Note the extreme length of her tender. This photo was taken about 1920. *Photo, collection of Bob Berio.*

This rare rear end photograph of #5 shows the length of her tender. *Photo, collection of Bob Berio.*

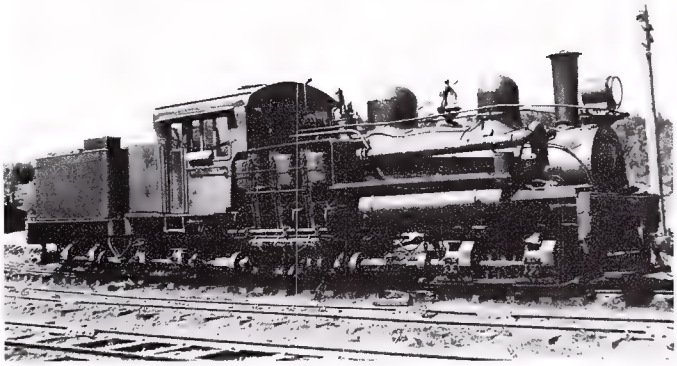
Doug Richter caught #5 in this photo sitting just in front of the already scrapped #6. The date was in the 1940's.

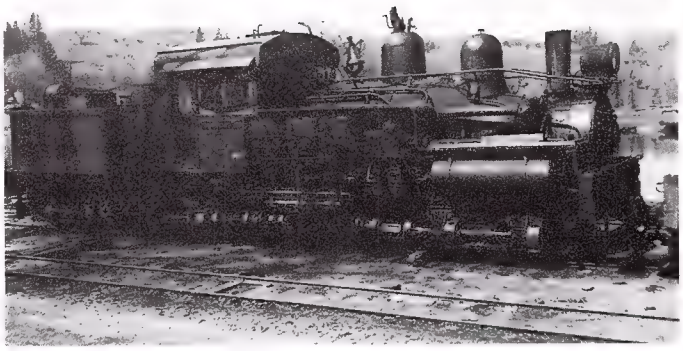
Right top to bottom: Shay #6 came to the West Side equipped with a nice wood pilot. This picture was taken about 1906 just in front of the car shop site. *Photo collection of Russ Simpson.*

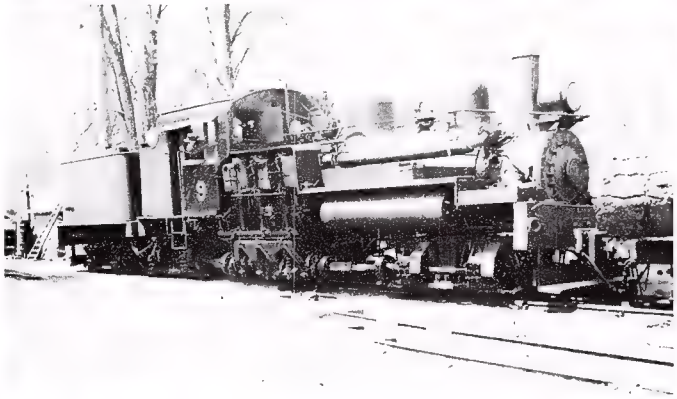
The business side of #6 as she looked in 1939. A year or so later the #6 was on the dead track being used for spare parts. *Photo by Doug Richter.*

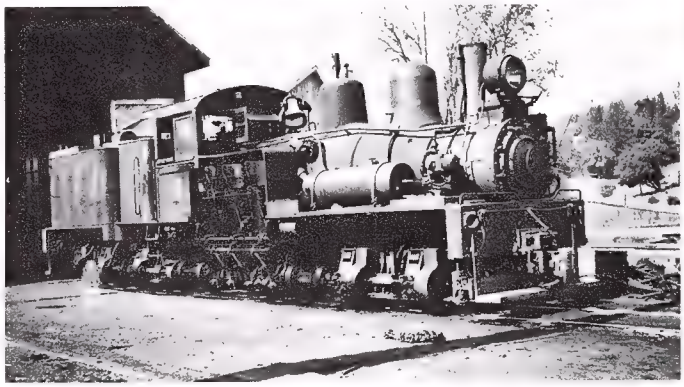
This 1922 photo of the left side of #7 shows her in Hetch Hetchy & Yosemite Valley paint. *Photo collection of Bob Berio.*

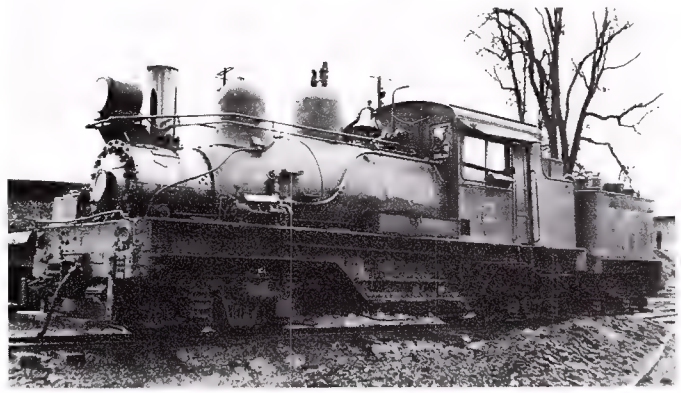
The right side of #7 in 1939. *Photo by Doug Richter.*

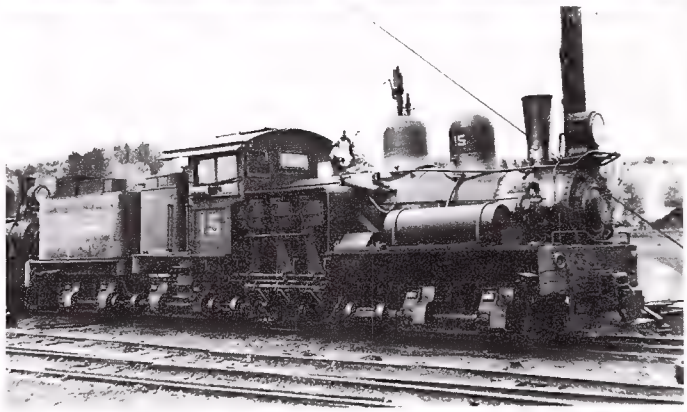












Left top to bottom: Bert Ward photographed #8 at the pond side in April of 1939 as she was waiting to start the season's work.

Number 9 was photographed in 1949 by Doug Richter.

Number 10 on a spring day in 1949. *Photo by Doug Richter.*

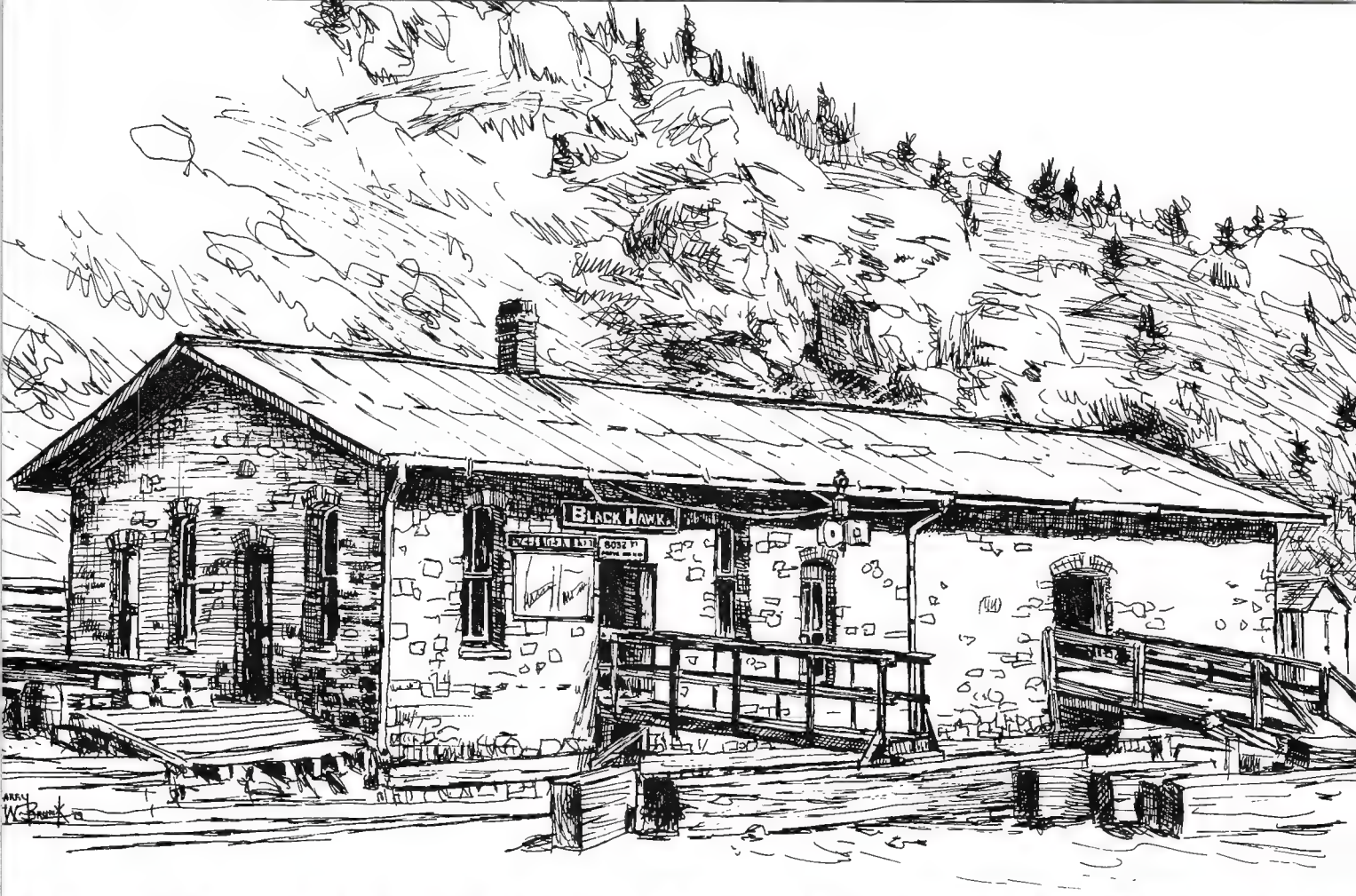
Bert Ward took this photo of the left side of #12 in 1948. Take special note of the #12's girder frame. Number 12 was the only West Side locomotive with this type of frame.

Right top to bottom: Guy Dunscomb caught #12 waiting the new season in 1944. The war didn't slow the nation's need for wood and West Side worked hard to supply wood for the war effort.

Doug Richter shot #14 sitting in front of the new enginehouse sometime in the late 1940's.

Compare this photo of #14 with the left side view of #12. Notice the frames. *Photo, collection of Dave Fontana.*

Bert Ward was on hand to catch this classic photo of #15 as she looked in 1944.



Up Clear Creek on The Narrow Gauge

Part 4: Black Hawk Station

by Harry Brunk
with major contributions by Rick Steele

From Forks Creek to Black Hawk, the distance is under eight miles, but the timetable shows it to be a 25 minute trip. When you learn that most of that distance you're climbing over 3 percent grades, it's not hard to see why double heading trains was fairly common on this branch. It's a twisting turning route, what we've learned to expect on the Clear Creek line.

Four and a half miles from Forks Creek we pass Smith Hill. Little is there but a "box car" office and a water tank. Closer inspection reveals the "box car" is in fact a refrigerator car. Rick Steele informs me that it was a Tiffany Summer and Winter vintage car originally. It out-lasted the railroad by several decades growing ragged and decrepit with time.

For years I saw it as I drove to and from Black Hawk and Central City. Some day I planned to take a photo of it for old times' sake. Then suddenly it was gone. Rick says it was burned for practice by the Central City Volunteer Fire Department in 1976.

A little over two miles more of twisting canyon railroad brings us in sight of Black Hawk and Central City. Magic names and places to gold hunters. Central City seemed to catch most of the glory. Once reported to be the richest square mile in the world, the old diggings still leave their mark on the mountains surrounding the little city. It is still an attraction today – though now mostly to tourists. Gilpin county is watching somewhat anxiously for a possible gold rush as gold prices increase.

Ask the average Colorado tourist or native if he's been to Black Hawk and he'll say, "No". How about Central City? "Oh, yes – the face on the bar-room floor (a painting), the Opera House – all the old time building and the 'new' Shay powered Colorado Central Railroad!" These answers from the same people, yet it's impossible to get to Central City by the normal and best known route without passing through Black Hawk by way of Gregory Street and Gregory Gulch. Perhaps the fact that Black Hawk and Central City run together accounts for this. Combined, the two towns don't take up much space.

In fact, the "pocket sized" effect of the area – hemmed in on all sides by mountains was the biggest impression I had when I first visited the area many years ago. Here were two towns designed to a model

Title illustration: Black Hawk station in the mid 1930's. Floods have collapsed the flume which covered Clear Creek as it passed through the yards and directly in front of the station. Ramps have bridged the gap, and judging from the stacks of timbers and ties in the yard, further repair work is underway.

railroader's specifications. Tight clearances – buildings small in size and crammed together – some nearly stacked atop their lower elevation neighbors as they climbed the slopes to gain a little living or business space. And "atmosphere"; it's like walking onto a Hollywood western movie set, but this is the real thing.

But why the ignorance about Black Hawk by most people? Black Hawk was known as the "City of Mills" and as such was probably always the more work-a-day of the two towns. The mill traces, foundations and smelter stacks used to dot the area in and around Black Hawk. Some still exist in ever more crumbling condition, but the last ten years have seen a growing clean up campaign spreading from Central City to Black Hawk. Some valuable historical relics have been "cleaned up" or cleared away along with dangerous and unsightly rubble. But what's unsightly to the average chamber of commerce and tourist director is often a glory hole of interest to me.

Black Hawk *was* a little less picturesque than Central City. The mine and mill operators built their homes up the gulch in Central City. Black Hawk did claim some fine homes of its own. Notable was the "Lace House", now an historical monument restored to its original finery. With eaves adorned in fine scroll work and gingerbread trimming, it does indeed give the impression of lace. Nevertheless, Central City did and still does tend to get the lion's share of publicity and attention.

Black Hawk lays claim to the first smelter in Colorado. In 1865 it was set up for business, though in 1878 it was moved down to Argo, Colorado. Throughout the years, a fluctuating number of mills and smelters – and combinations of the two tried their hands at gaining the gold and other minerals from the raw rock ore the miners brought to the surface.

The freight and passenger business was waiting there when the Colorado Central finally arrived in Black Hawk on December 11, 1872. One account goes so far as to say that the railroad was blocked in the narrow confines of Clear Creek Canyon on the edge of Black Hawk by an imposing defunct stone reduction mill. At any rate, the mill was to become the first depot there, and, unique among narrow gauge stations in Colorado – it would be a covered station. Arched doors were built in each end and the track laid through. This mill was designed to house 100 stamps, had plenty of room for the small Colorado Central trains, and served the railroad until the new station was built nearer downtown Black Hawk in 1878.

The "new" station is the one we'll concern ourselves with here. Built of stone, the 38 by 80 foot structure is the one pictured when Black Hawk station is mentioned. It lasted a short time less than the railroad it served. Located in what could be considered the flood-plain like joining of Gregory Gulch and Clear Creek Canyon, the station was built on the edge of Clear Creek. The creek was covered or "flumed" in the yard area. Originally the platform planking covered the creek completely.

Rick Steele, who lived and worked in the Black Hawk – Central City area for some time has a mountain of information on the area. Rick's article on the Central City depot appeared in the May 1976 **GAZETTE** (out of print). Concerning the station in Black Hawk and its platform "flume" collapse, Rick says: "The depot sat on the east side of Clear Creek, just up the street, but on the other side of the creek from the famous Lace House. The tracks on the passenger side of the depot were flumed over. That is to say that a wooden box culvert was built over Clear Creek, covered with dirt, and rails laid on top of it. In the mid 30's, the flume collapsed, taking the passenger track closest to the depot with it. Rather than rebuild the flume on this, by now, unprofitable branch line, the C&S chose the cheapest route (typical) that it could. They merely built ramps from the freight door and main door to solid ground, and converted the ramaining door to a window."

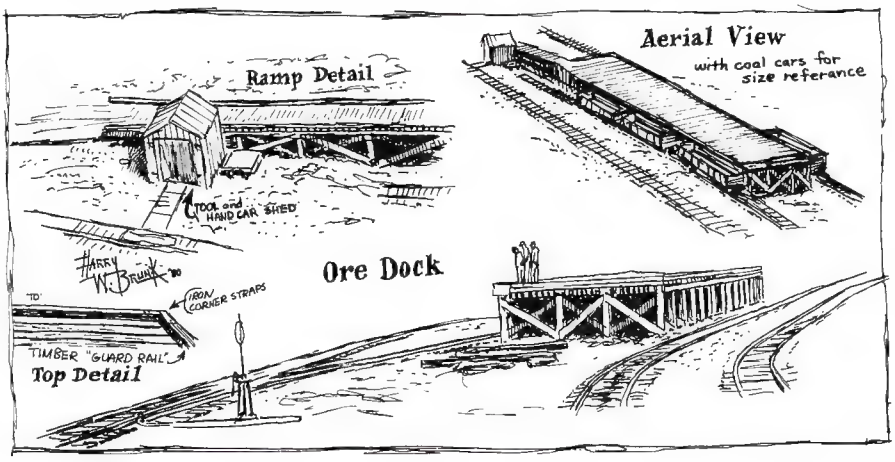
"Before the flume collapse, the Black Hawk depot had a small lean-to wooden structure located next to the baggage room on the south end of the depot. This was *not*, I repeat *not* a register room. After having lived in that country it was quite obvious. It was located over the flume, before the flume collapsed and the ramps had to be built to the baggage and waiting room doors. This was the necessary water closet, or one-holer, whichever you prefer. It was common to build them over streams thus obviating the need to relocate them when the original pit had been filled."

The ramps were built as shown in the sketch and plans after the collapse.

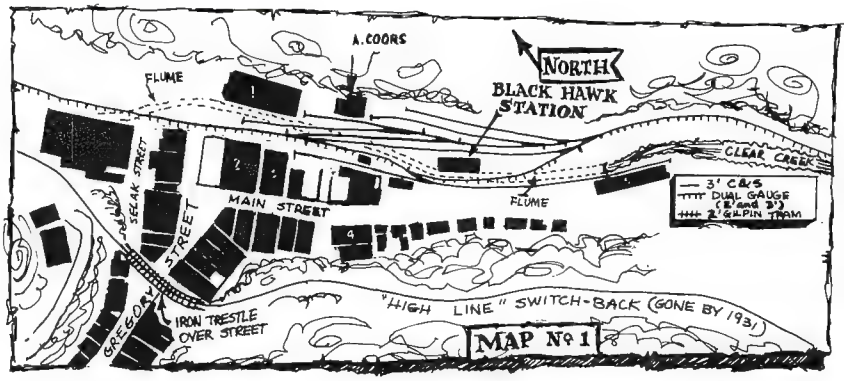
The elevation difference between Black Hawk and Central City necessitated a double switch-back to gain the altitude. The history and statistics of this climbing twisting route are well documented in *Colorado Rail Annual Number Ten "Narrow Gauge to Central and Silver Plume"* as well as Mac Poors' *Denver South Park and Pacific*, available once more in memorial edition. Some fine photos accompany the sections on the switch-back and the two wood trestles needed in its completion. But Rick Steele paints a good "word picture" of the switch-back operation:

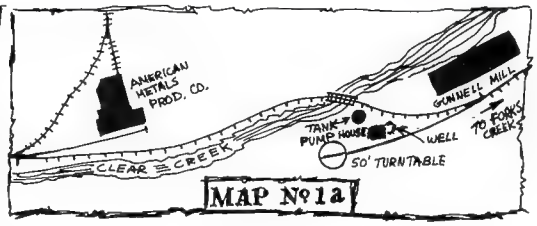
"Black Hawk is the sister to Central City and has lived in Central's shadow ever since the two cities were founded in the early days of Colorado. Black Hawk is located one mile, as the crow flies from Central City, but when the railroad was built, the railroad had to construct a four-mile switch-back between the two cities because of a 471-foot difference in elevation between the two depots. Many of the locals, who knew best, would take the train from Denver to Black Hawk and from Black Hawk, they would walk to Central City because it was faster than the train. The railroad took, according to the schedule, thirty minutes to traverse the switch-back. One of the old-timers up here was relating a story that bears repeating. He was riding the train from Denver to Central City when he approached the Conductor and inquired, 'Don't you think that you can make this train go any faster? My wife's making dinner and by the time I get there it's going to be cold.' 'Why don't you get off and walk?' the Conductor replied. 'I don't want to get there too soon' replied Charlie."

An interesting model railroad cold be built based solely on Black Hawk and the



Montage of sketches from Kindig and Maxwell photos of the ore dock as replaced below Black Hawk. When the ore dock was behind the depot, the tool and hand car shed was not placed beside the ramp. This is the only difference in the two. Heavy timber construction throughout. Heavy timbers lined the rim of the platform as a guard rail.





Map #1: Black Hawk circa 1916 showing the relationship between the town and yard trackage. A few buildings of interest are numbered: 1. Independent Smelting and Refining Co. 2. Boiler Works. 3. Machine Shop (probably connected with the boiler works.) 4. The Gilpin Hotel. 5. State Ore Sampling Works. Spurs were extended and reduced as needs required over the years. By 1917 the dual gauge was gone and with it all tram trackage.

Map #1a: An extension of Map #1 showing the C&S 50-foot iron turntable. Black Hawk also sported a water tank, but no photos have been seen of it. It's shown as well as the pump house and well serving it.

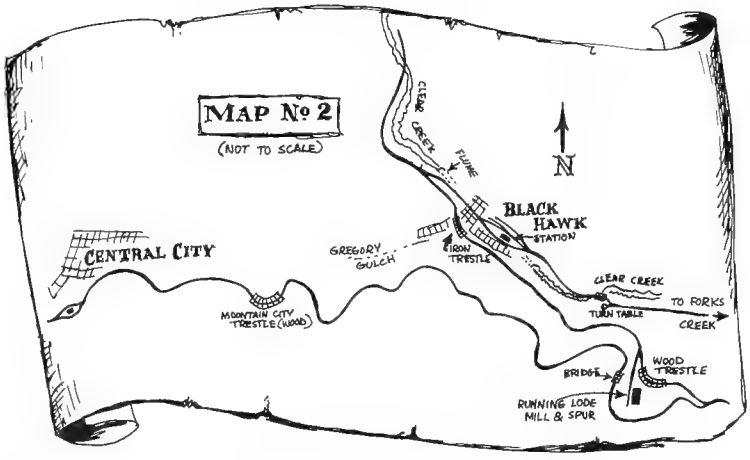
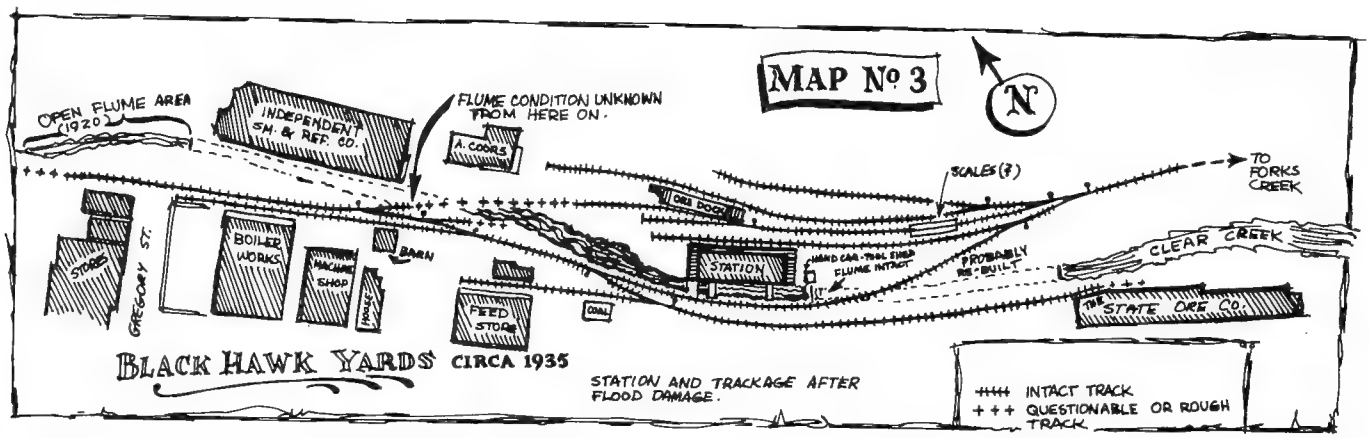


Photo opposite: A 1940 view of the relocated yard. The ore dock is between the tracks at left center. The new highway curves around the ridge to right. Downtown Black Hawk is just out of sight to right. *Photo by John W. Maxwell.*

Map #2: Black Hawk to Central City via switch backs. Tram trackage not shown.

Map #3: Black Hawk station and yards after the flume collapse– circa 1935. The ore dock is shown. 1932 photos don't show the ore dock, dating it some time after July of that year, at least in this location.



high line to Central City alone. (See map #2.)

Quoting Rick again: "At the Polar Star mill in Black Hawk, the famous C&S narrow gauge connected with another equally famous narrow gauge line, the two-foot gauge Gilpin Tram. The Gilpin served the mines in the Gregory, Nevada, Bald Mountain and Russell Mining districts and provided the Clear Creek line with an important source of revenue until the Gilpin's abandonment in 1917."

By 1925 the ebb and flow of traffic on the high line led the C&S to the decision to cease operation of the switch-back. The savings in maintenance on the miles of track and trestles alone had to be considerable. Many mines were still producing in the Central City area, however. Some consideration was given to building a depot somewhere between Black Hawk and Central City. But finally in May 1931, the I.C.C. gave approval for abandonment of this section, and by July the tracks were gone from the switch-back: the first victim of the times on the Clear Creek Line.

Probably about this time an ore ramp or "dock", as it was generally called, was built northeast of the station. The ore from Central City and surrounding area was then trucked down to the ore dock and simply dumped or shoveled from the truck on the dock into waiting coal cars on the convenient sidings on each side. There was no storage pocket with this dock. This was strictly an unloading dock at its simplest.

This was too good to pass up, so the UC&N Black Hawk yard has its equivalent ore dock. This gave me an excuse to try out some truck building inspired by Mic Greenberg's **GAZETTE** articles. Every truck type new and old might show up at the dock from time to time. Doubtless, even a horse drawn wagon or two might be seen there, even well into the thirties. At the ore dock, the impression is that the mining business is on the upswing with plenty of traffic for the railroad. Many mines were up the draws and slopes out of sight of Black Hawk and Central. There's no way to model even a few of them. On the UC&N, there are and will be plenty of mines both operating and abandoned, but the ore dock allows me to skip over a redundancy of mines. The operating traffic in and out of Black Hawk is easily doubled thanks to this dock.

The track plan (map #1 and 1-a) is based on 1916 C&S Gilpin County blueprints provided by Rick. For this article on the station I included only the track around the station and Gregory Street. Numerous spurs to various mills and smelters above Gregory are not shown. The tie-ins with the Gilpin Tram above Gregory are also not shown. Mallory Hope Farrells' book *The Gilpin Gold Tram* provides an excellent reference on this and has photos and maps of the C&S operation above and beyond Black Hawk. The track south of town was three-rail dual gauge for a considerable distance when the Tram operated. Only here it was two-foot inside the three-foot C&S. In Clear Creek, three-foot gauge was "standard" rather than "narrow". Some trackage is shown below Black Hawk as far as the C&S turntable in map 1-a.

The Tram operation below the Gunnell mill in map 1-a was extensive. Splitting from the C&S trackage and fanning out to both sides, it served other mills over a mile south and east of downtown Black Hawk. In forthcoming parts of this series I'll present further maps showing this intertwining two-foot tram, including the interesting New York Mill as well as other mill trackage.

The tram was gone by 1917, however, and the C&S three-foot line faced the future on its own.

The washout, that collapsed the flume also ripped out considerable trackage (see map #3). How completely this trackage was re-built seems to be a matter of conjecture. These were depression years, but mine traffic was picking up then. My hunch is that trackage was partially re-built as traffic demanded until the entire yard was re-built a mile or so southeast of the original location sometime around 1940. Slides taken by John W. Maxwell in 1940 show the new highway. From a vantage point high up on the slope southeast of Black Hawk, the area once occupied by the station and yard is now vacant. The new yard didn't last much more than a year, but the ore dock was important enough to be added to the new arrangement. Whether the new yard was caused by the highway construction or additional washouts is unknown. The station was gone, and soon the whole Clear Creek Line would follow.

As modeled on the UC&N however, the Black Hawk station is still fully in business. I chose to model it as it appears in the sketch with flume collapsed and ramps installed. It is cast in Hydrocal from a master mold made some years ago. I'll explain this procedure in an upcoming installment of this series. The baggage ramp next to the office was eventually fully ramped as indicated in the plans. I will eventually add this on my UC&N version.

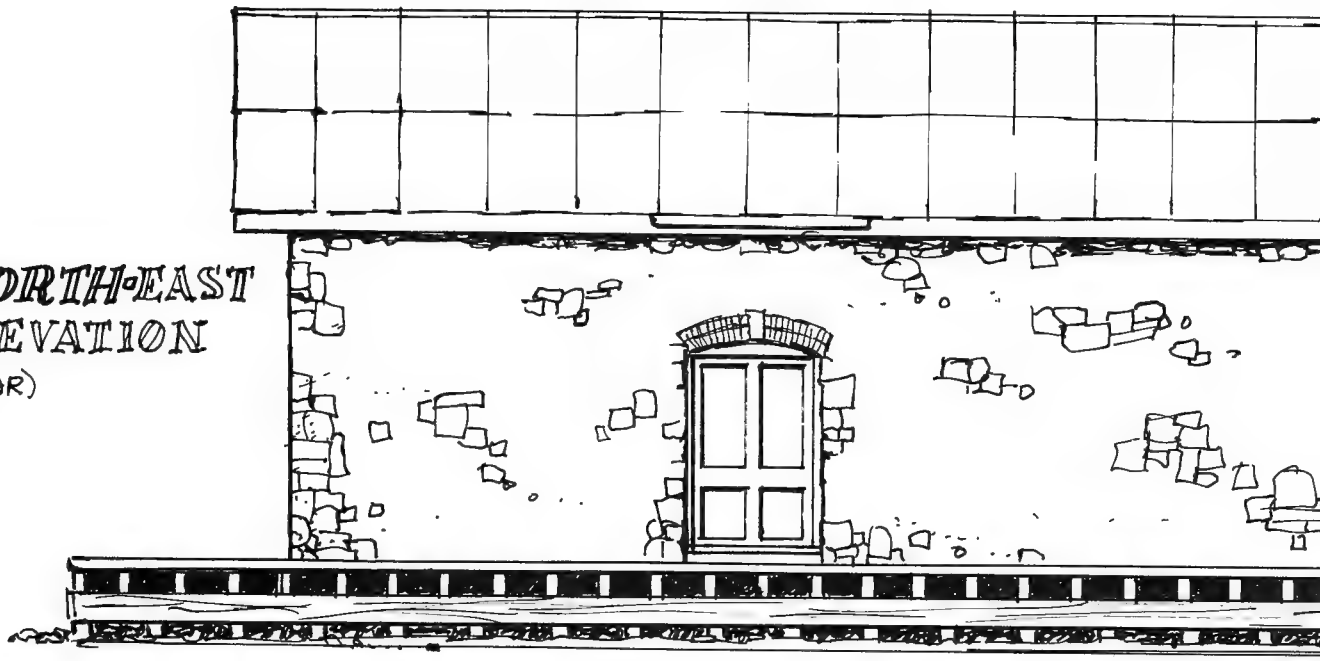
Even with the pocket sized town and yard presented by the prototype, some compression and selective choice of buildings was needed on my UC&N Black Hawk. Gregory Street is nearly fully modeled back to the area of the iron trestle over the street. I used a somewhat elastic time frame so I could include the various buildings as I liked them best. Some sneaky tricks were used which will be passed on in future articles.

Try as I might, there was no way to arrange Black Hawk so the station front faced out from the narrow shelf layout. I toyed with the idea of turning the station around, but discarded this as it tended to destroy the entire flavor of the modeled town. After showing off the station and town to several friends, I decided the station needed some positive identification. A duplicate name board was added to the back (the front name board was out of sight to all but the most acrobatic of viewers.) Even though the prototype didn't have a sign there, it helped give the UC&N version a more finished railroady appearance.

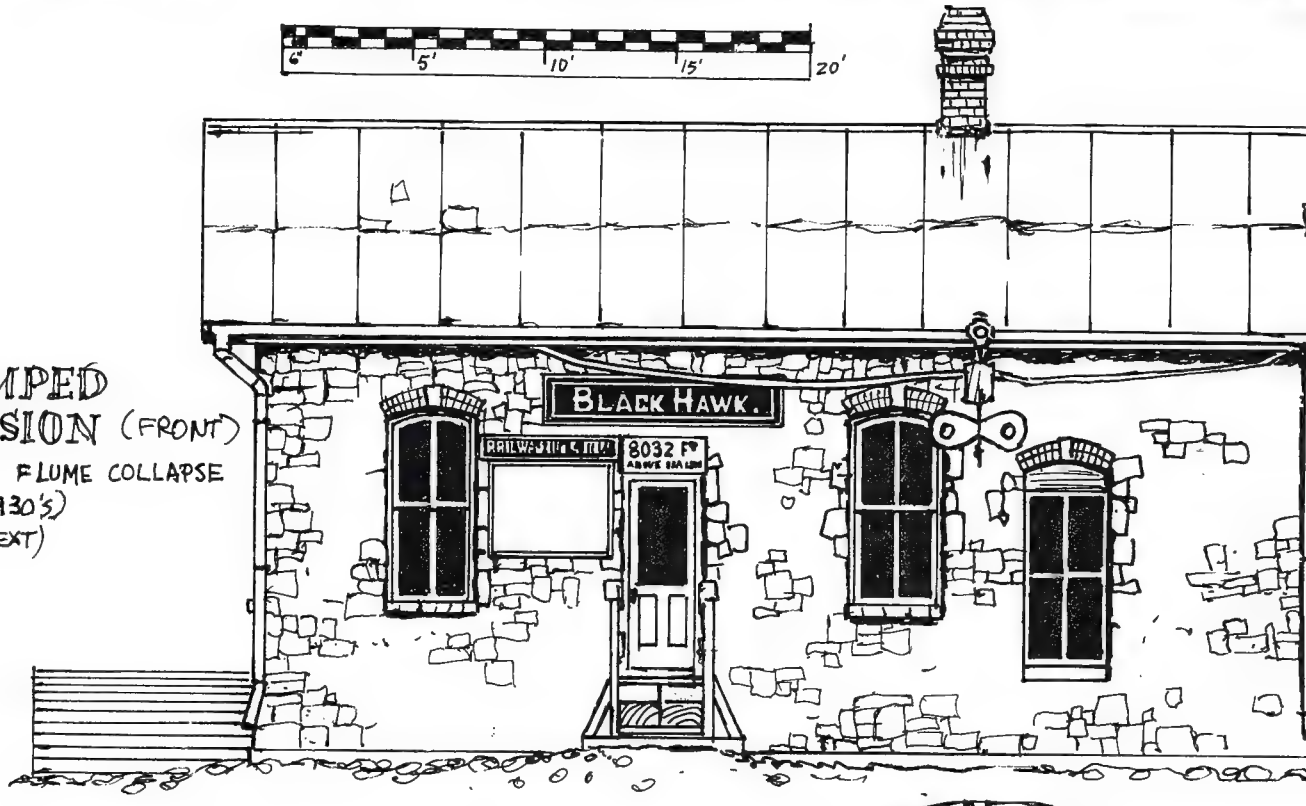
The rock of the station is undoubtedly native local stuff. The color varies from a light golden buff color through pale yellows and browns to a few darker reddish browns. The overall effect is light, however, so dilute with plenty of white. Rick thinks the window, door and eave trim was probably depot green. I finished mine with the old boxcar red trim so take your pick. The roof was tar paper probably either red or green particled or pebbled stuff. Window and door openings were brick arched.

In future installments we'll visit many of the buildings of commerce in Black Hawk. Tight, compact, even crowded, the two towns were a victim of what Rick so aptly describes as "Colorado's first case of urban sprawl".

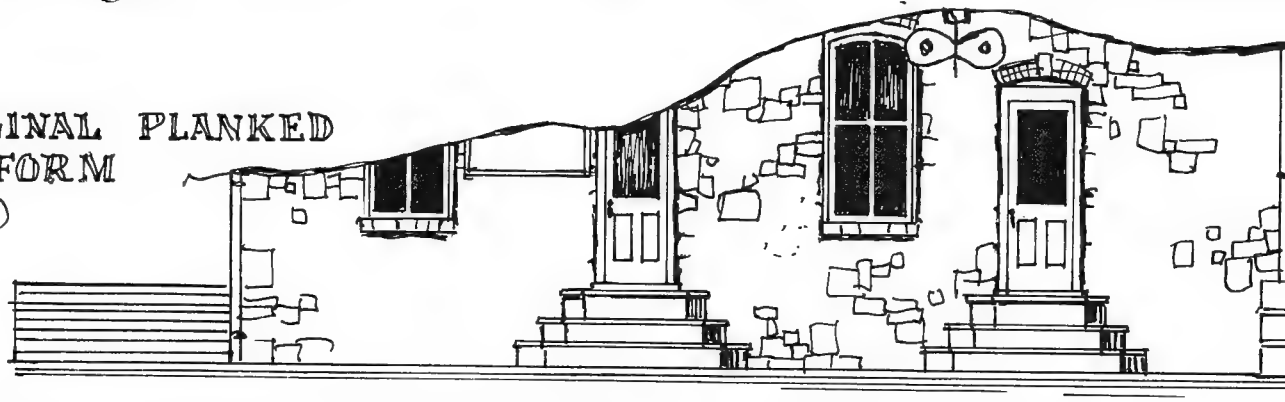
Next: I'll check out the Colorado and Southern's box cars. There were some interesting variations of box cars used on the C&S (and later RGS) in the post 1900 time period. I'll try to touch all the bases on this.



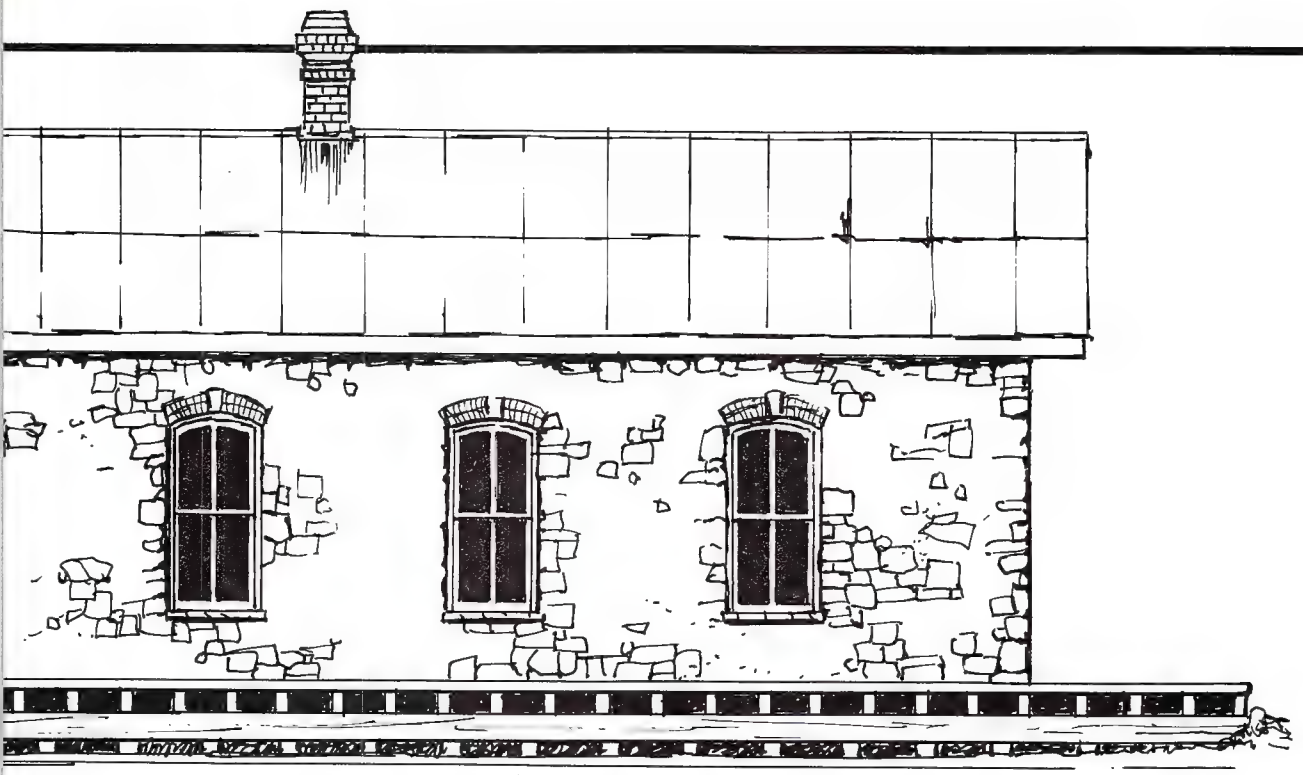
NORTH-EAST ELEVATION (REAR)



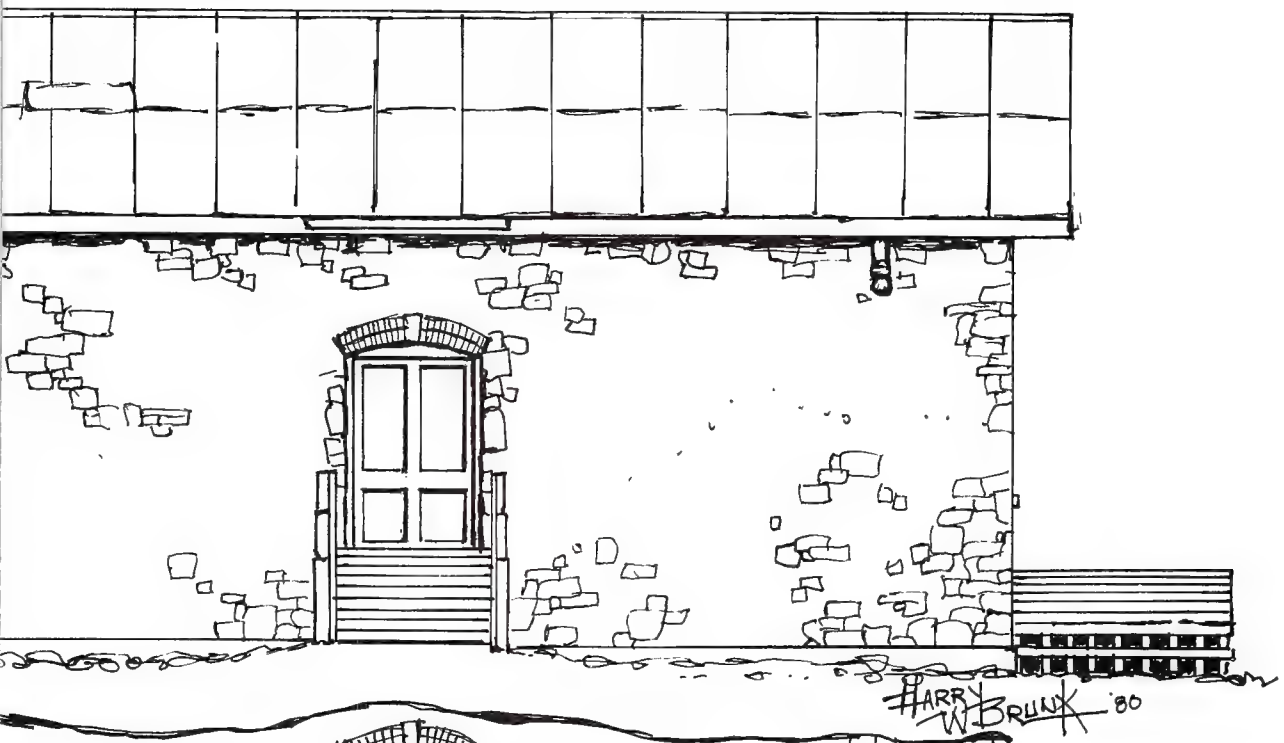
RAMPED VERSION (FRONT) (AFTER FLUME COLLAPSE MID-1930's) (SEE TEXT)



ORRIGINAL PLANKED PLATFORM (FRONT)



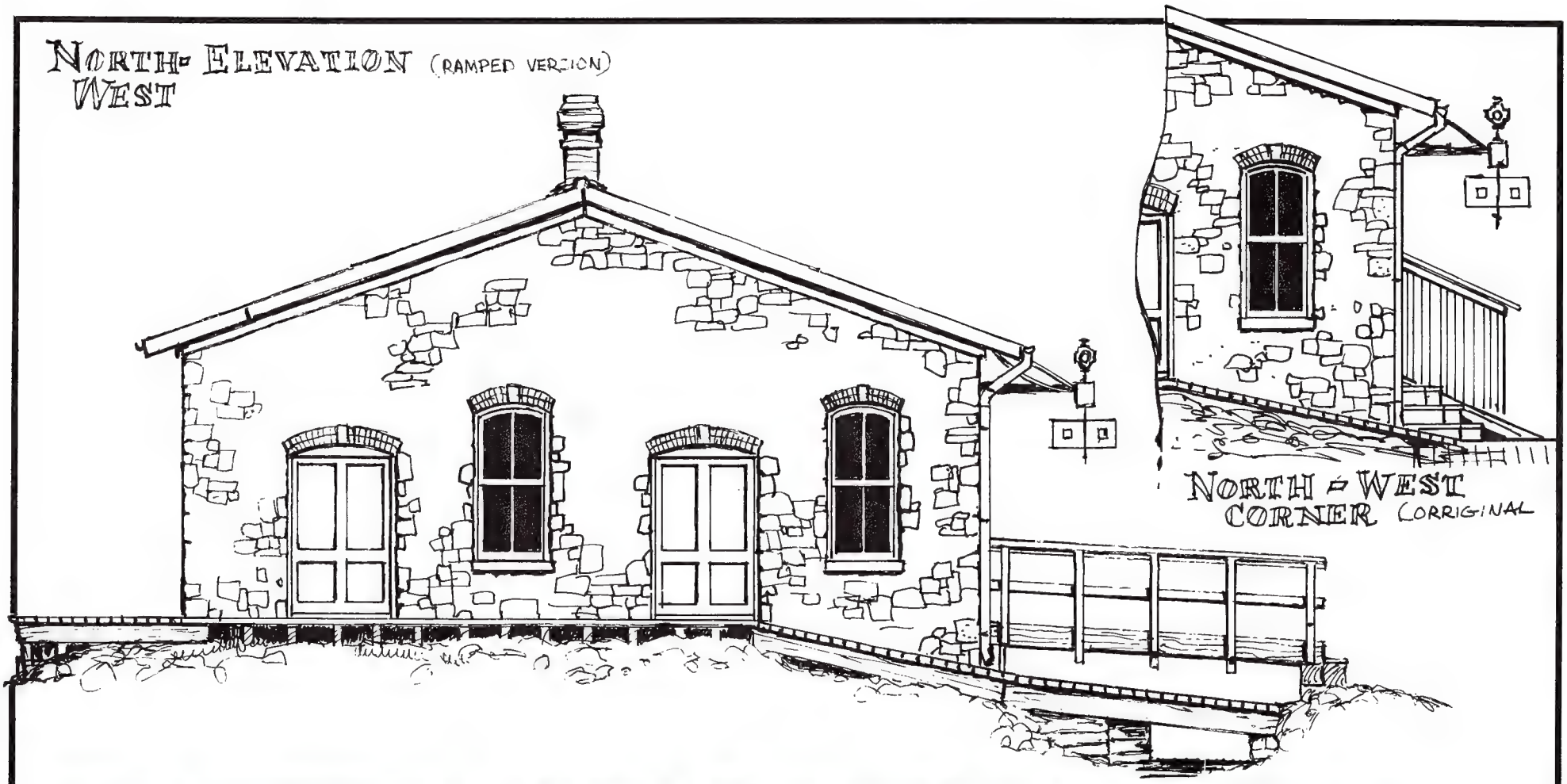
The Flume collapse had little or no effect on this side...
The ramped and orriginal version appear the same.



Scale: 3.5mm = 1 foot

OUTDOOR "FACILITY" (SEE RICK STEELE's COMMENTS IN TEXT)

NORTH ELEVATION (RAMPED VERSION)
WEST

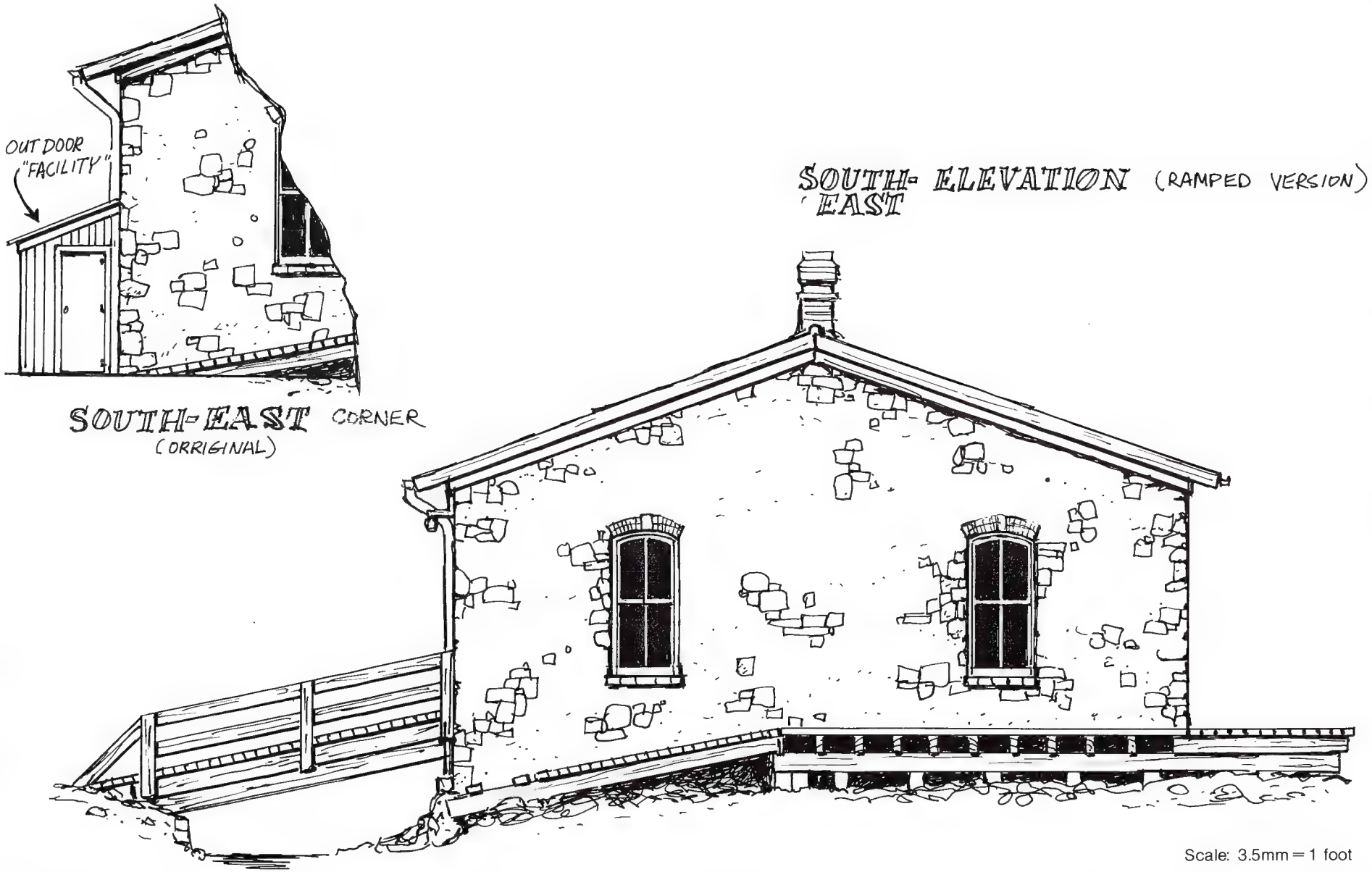


NORTH - WEST
CORNER CORRIGINAL

The UC&N Black Hawk station. The ramps are a bit shorter than the prototype, as Clear Creek is narrower to conserve space. The ramp on the left will eventually be rebuilt across the creek as the prototype was (see plans). *Photo by Harry Brunk.*

Considerable rubble still needs to be cleaned up. The freight ramped rear of the station was unchanged by the flood. *Photo by Harry Brunk.*

The "other end" of the UC&N Black Hawk Station. The small shed just on the left edge of the photo is the tool and hand car shed as placed on the prototype. *Photo by Harry Brunk.*



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VIRGINIA & TRUCKEE RAILROAD CO.

This dramatic view shows V&T #26 with train #2 in Steamboat, Nevada in 1949. Standard gauge short lines have one advantage over most narrow gauge lines. In standard gauge more interchange takes place so the variety of cars to model is greater. This photo shows that advantage very well. There are five non-V&T cars in the consist being trailed by two V&T yellow passenger cars. *Photo, collection of Ted Wurm.* The small photo shows Virginia & Truckee #27 and train #2 at Washoe City, Nevada in 1950. Notice the characteristic Virginia & Truckee yellow and green color scheme on the passenger cars and caboose. *Photo by Ted Wurm.*

A Comstock Legend

The VIRGINIA & TRUCKEE for MODELERS

by Ted Wurm

The Virginia & Truckee Railroad in Nevada was a rare and unique subject for modelers, photographers, train watchers and riders. It was rare in that it survived into the late 1930's and beyond in much the same quality condition and with much of the excellent Victorian equipment with which it had started almost 70 years earlier, in 1869. Over this long life span, the barren mountains and sagebrush flats of the V&T's line to Virginia City remained virtually unchanged. While the population of Nevada actually diminished over much of this period, the railroad was left alone in its Victorian splendor. Even in Reno, where the V&T came down a back street almost into the center of town, the slow growth and development of the town in its pre-casino era was in perfect tune with the quaint old railroad. Quaint, but certainly not obsolete, the V&T was a vital cog in the life of this region until motor vehicles and good highways wiped it out.

There were fabulous profits in the early years, so the Virginia & Truckee was built and outfitted in first class style. The quality was maintained even after profits disappeared in the mid-1920's, thanks largely to the the sentimental attachment of Ogden Mills to this property that had contributed greatly to the estates of his father and grandfather. The large station building at Carson City served also as headquarters and had offices for an inordinate number of officials for a short line. The brass titles on the large doors were impressive. The massive enginehouse-shop building of stone, was busy, clean, and efficient. It must have been one of the largest structures in shortline history. The V&T enginehouse-shop, built in 1873, was larger than a football field: 322 by 180 feet. Here the railroad equipment was maintained and foundry and shop work for the general public and business firms was done. Locomotives in for maintenance were always kept inside, even those currently out of service. Rolling stock was built, rebuilt, kept clean and painted inside various buildings and sheds, mostly locked.

In 1937, General Manager Frank Murphy wrote to a film company contemplating buying an old locomotive and coach. He noted that, contrary to other railroads during the Depression years, the V&T did not leave out of service equipment exposed to the elements. ". . . our locomotive has never been out in the open since tubes were renewed and no way for moisture to reach them, save some mechanic use them for a cuspidor, which is not likely with all the available ground for that purpose." Thus, the V&T was truly kept up and was really a sight to see when the railfan hobby burst into bloom in the late 1930's. Here preserved and operating was something out of great-grandfather's day, something that could be seen, touched, photographed, and actually ridden on. Some of the very first coach stock was still in use on the thrice-weekly mixed trains 1 and 2 as late as 1936, bright in its yellow paint, clean and tight and comfortable. Several other cars of the 1870's were in use or stored away, needing only a quick cleanup to go into service.

Inside the roundhouse were four Baldwin locomotives of the 1870 period and snowplow-equipped #18, built by Central Pacific for the V&T in 1873. Only two of these five were considered to be out of service and one of the two, #12, was still fitted as a woodburner. Three small ten-wheelers did the bulk of V&T train service after the mid-1920's, but they were adequate for most trains. Numbers 26 and 27 could handle trains of 250 to 300 tons on the main line grades up to 2½ percent. High-drivered #25 was tacked on as a helper four or five times a month in the summer cattle-hauling season. When the V&T was discovered by fans and modelers in its declining years, there was a mixed train every Tuesday, Thursday, and Saturday, with McKeen Car #22 carrying on the other three days. Trains averaged a little better than 20 miles per hour, having to get up over 30 to maintain this average because of the hills in both directions. They went rattling over the original stub switches, past red water tanks and stations (only the stations at Carson, Mound House, and Virginia were in the light yellow paint), switching out freight cars, dropping off mail and express and a few passengers just as they had done for years, and years – and years.

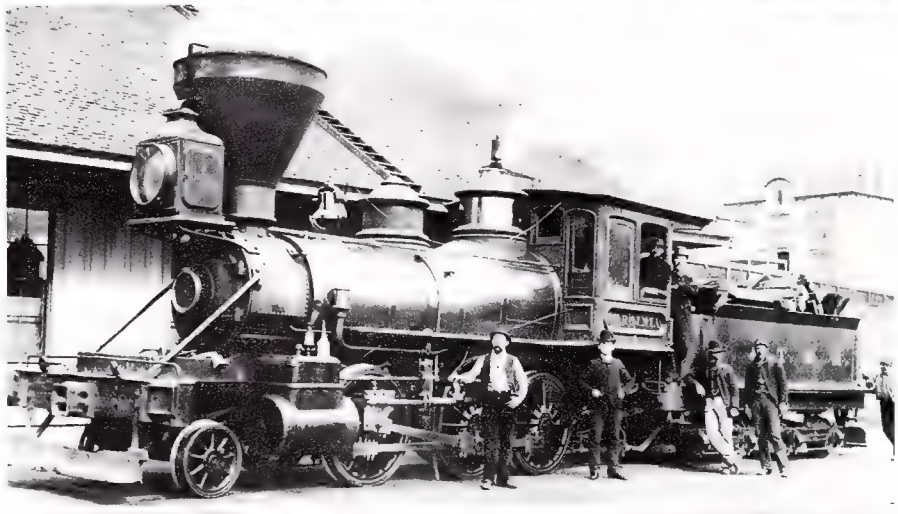
So the train watcher and engine picture fan found plenty to keep him enthralled in this surviving, living, breathing relic of the old west. They watched and photographed a real 4-4-0, brass-decorated #11, as she climbed the long grade to Virginia City, running specials and helper duty. They shot engine #18 with the huge wedge snowplow leading the pack as triple-headed

train #2 fought blizzards southbound from Reno. The modeler noted with delight that the line from Reno split into two as it reached the outskirts of Carson. The main continued straight down West Washington Street to the depot, while freights were switched over a block south to Caroline Street, so they would pass behind the passenger station and rejoin the main just beyond the double-spouted water tank. Although there were no longer enough separate freights to warrant use of the bypass line after about 1930, this trackage was all intact through the 1930's and the grand spread of yard trackage at Carson served as the prototype for many an early-day modeler. The old engines and some of the ancient rolling stock were sold beginning in 1937. Some went into movie work, World's Fair displays, and even wartime construction work. Still the basic oldtime railroad flavor of the Virginia & Truckee seemed to hang on to be admired and recorded to the very end in 1950.

Let's take a quick look at what a prototype the V&T offered for model railroaders. There were tunnels and trestles, ties firmly planted in unballasted semi-arid soil, holding light rails – some of the original Sheffield steel. There were work trains containing outfit cars in the same basic yellow as the train coaches. Trackside structures were mainly painted a sort of boxcar red with white trim, including the water tanks; the stations at Minden, Franktown and Gold Hill; the freight houses; and all the many scattered structures at Carson. There were the remains of stone buildings beside the track at Washoe City. The tracks went curving between the crumbling wooden firehouse and the miners' union hall at Gold Hill. There was a real snowshed on the mountainside below Scales and in every direction in the Comstock area there were mining structures of infinite variety, some still busy in the 1930's.

The narrow-gauge subsidiary, Carson & Colorado, not only tapped the best of desert scenery almost as far south as Death Valley; it sent its engines on a special flatcar to the V&T at Carson for shopping in that huge stone enginehouse.

The V&T offered modelers some unique structures. There was the long, slim, red motor car house where McKeen Car #22 was fueled and occasionally sheltered. McKeen #22 was 70 feet long and hid its pointed nose and round portholes in this house of its own. There was a passenger train shelter at Virginia City, which kept the blazing sun and the heavy snows off the San Francisco Express equipment while it was laying over. There was the three-track car storage barn at the west edge of Carson, a block from the Governor's Mansion; this was sometimes referred to as the "old roundhouse", though it sheltered a treasury of beautifully-kept old passenger cars. There was a neat two-holer outhouse out behind Gold Hill station.

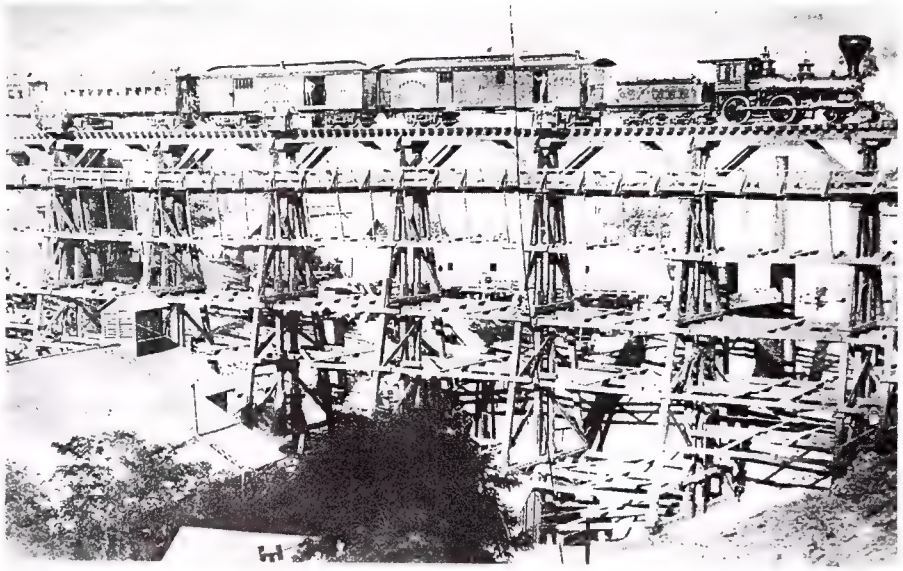


Photos opposite from top: Is there a narrow gauge heart so cold that it is not stirred by this photograph of the Carson City roundhouse? This photo was taken in 1938. The building is still there and is worth a visit. *Photo collection of Al Graves.*

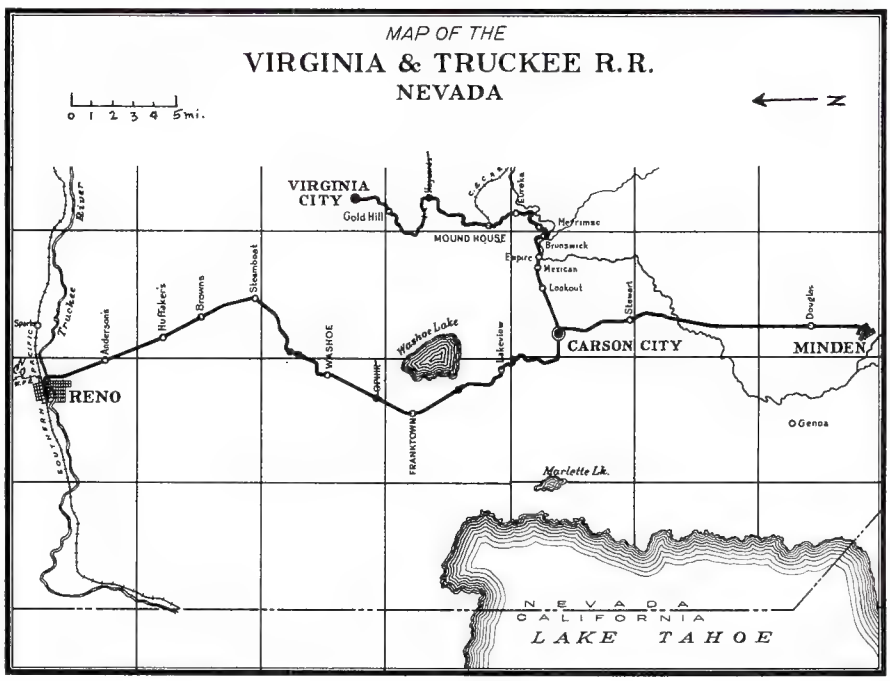
The "Virginia" at Virginia City, Nevada in 1895 when she was the Virginia City switcher. She was built by Baldwin in 1869. *Photo collection of Ted Wurm.*

Virginia City, Nevada circa 1890. Notice the roundhouse in the distance, the harp switch stand, and that neat little ore bin. *Photo collection of V&T RR courtesy of Ted Wurm.*

The V&T at Mound House, Nevada in 1937. This was a joint station with the Carson & Colorado three foot gauge and the V&T. The C&C is to the right and the V&T to the left. Notice the V&T wooden water car on the left. and the two hole out house. The view was taken looking north. Plans for this station appeared in the March/April 1980 **GAZETTE**. *Photo by Gilbert H. Kneiss.*



Number 11 "Reno" with the Virginia City express on the Crown Point trestle in 1878. The cars seem to be the Kimball set numbers 1, 2, 3, and 4. *Photo collection of Al Graves.*



The switchback-type trestle on the lower line in Virginia City was a standout, hanging out across a gully, it enabled ore cars to be fed into the loading area at the C&C mine.

The Virginia & Truckee survived into the railfan and model era with perhaps the finest assortment of oldtime equipment intact anywhere in the United States. Still on standby in the roundhouse were Baldwin 4-4-0's numbers 11 and 22 of the early 1870's. Another eight-wheeler, #12, was stored out of service and still outfitted as a woodburner. Also out of service was the last 2-6-0 on the roster, #20. In frequent service were ten-wheelers numbers 25, 26, and 27, all Baldwin products of the early 20th Century and referred to as the "new engines". All operating locomotives were kept in top condition up to 1938 in the V&T's own back shop. Numbers 26 and 27 survived virtually to the end of service, assisted by second #5, an Alco 2-8-0 acquired from Nevada Copper Belt in 1947.

To the delight of railfans, the V&T's stock of passenger train equipment contained examples of cars turned out by a great variety of builders. Cars 1 to 4 were ordered from Kimball in San Francisco in 1869, while the railroad's own new shop at Virginia City turned out caboose-coaches 5 thru 8 at about the same time. The real gems to many western model builders were coaches 11 and 12, ordered from J.G. Brill & Company in 1874. At the same time mail and express cars 13 and 14 were delivered by Oxford Co-op Car Company, followed by combinations 15 and 16 from Detroit Car Company. Coach 17, another real beauty, was a former Central Pacific private car and served the same purpose for several years on the V&T, venturing even to the East Coast with General Manager Yerington and other nabobs. Later cars, generally of more "modern" design, were in great variety and pleasing appearance.

The V&T also offered model fans an interesting roster of miscellaneous rolling stock, such as wooden water car #1, tunnel cars, wood cars, the steel four-wheel ore cars, and some dandy small boxcars, one of which was rebuilt into V&T Construction Car #6, a maintenance of way bunk car painted yellow to match the passenger stock. There were two flangers built on modified platform cars (flat-cars). Flanger #2 became a snowplow when locomotive #18 was sold and the wedge plow was placed on the flanger,

VIRGINIA & TRUCKEE

after a brief trial on engine #25. The V&T handled regular Pullmans and private cars in the earliest flurries of the great Comstock silver excitement. It frequently used SP day coaches in the later years for such specials as Nevada Day excursions. In the last two or three years of its existence, the V&T was home to one of the most famous private cars of all, the "Gold Coast", home of Lucius Beebe and Charles Clegg, parked on a siding near the Carson station and occasionally seen at the rear of train #1 headed for Reno and San Francisco.

The Virginia & Truckee Railroad has left a tremendous legacy for the western historian, the railroad fan, the modeler. There are all sorts of relics to be seen and admired, to be photographed and measured. Starting at the old headquarters at Carson City, Nevada, there's the station building, which survives as offices and a Masonic hall. Across the way is the great stone einginehouse-shop complex, the outside looking reasonably sound, but the interior a shambles of junk and rotting timbers. Preservation efforts are underway. Gold Hill station, county owned, is leased to and preserved by active Carson City RR Association. Franktown still boasts its square water tank, though it looks fragile. The right of way can still be seen climbing the hillside northwest of Carson and down in rugged Washoe Canyon. Carson City has a nice V&T display in the state museum and caboose-coach 24 decorates the lawn in front of the former post office on Main Street (Hwy. 395). At the south end of town the body of McKeen 22 forms part of a hardware business, along with a Hall-Scott body from NCB. Just beyond this, on the west side of the highway, is the new V&T railroad museum, a branch of Nevada State Museum, which houses engine numbers 18, 22, and 25, and assorted parts of various cars awaiting restoration under the knowledgeable management of Dick Datin.

Other surviving V&T locomotives may be seen at a variety of places. Number 11 is at Old Tucson. Numbers 12, 13 and 21 are at California State RR Museum at Sacramento. Number 20 is at a railroad museum in Pennsylvania and #27 is displayed in Virginia City, Nevada near the surviving red freight shed. In Virginia City, former railway post office car and original bullion car #13 are to be found on "C" Street. Other cars, privately owned, are stored on the Sierra Railroad at Jamestown, California. One type of equipment that apparently didn't survive into modern times was a sort of combination freight car; several of these were designed by master mechanic Bowker and built by the V&T. These combination cars were flats with ore compartments in the center, which could carry ten tons of ore down from the mines to the mills, and eight cords of wood back to the mines.

The best V&T right-of-way trip available today begins about three miles east of Carson City, Nevada where the Carson River flows into the canyon now named Brunswick. Here were located all the mighty mills of the 1870's and 1880's, the reasons for building this vital railroad. Ore had to be carried down the mountain from the Comstock Lode to the river for milling and the V&T got the monopoly. The trains passed among the mills *en route* from Virginia City to Carson City, and anyone can drive the same route today in either direction on a good, solid dirt road right where the rails were removed in 1941. The desert dryness and light rainfall has left the line intact – half shut your eyes and you can see the old "Reno" scooting along the canyon. To get into the canyon, take the very last side road off Highway 50 before the hills, just a short way to the right and it leads right into the canyon.

The road comes out of a side gulch at Mound House and the V&T rails are still there, embedded in the highway crossing. Beyond that, it's tricky finding the line again in the junkiness of Mound House, but just off to the right beyond the farthest "cat house" is a slender trail in the sage brush. It is the old V&T grade which can be driven almost all the way to Gold Hill. No special car is needed, but drive carefully and avoid the rainy season. Gold Hill Station looks sound with its new roof; in a few years or sooner it should be responding to the whistles of V&T trains from Virginia City. The restored V&T is down into tunnel #4 now, expects soon to bypass the remains of tunnel #3 and will then be at Gold Hill Station, the goal of Bob Gray and his most commendable restoration of his beloved Virginia & Truckee.

Engine #29 of the restored V&T at Virginia City, while a small 2-8-0, is almost the exact same size as the last true V&T locomotive, #27. From the front they looked exactly alike. You can stand on the highway overpass as the #29 climbs the grade with her train today. The scenery is absolutely unchanged from a day 42 years ago when excursion engines 11 and 27 could be viewed from the same spot. The grade is the same, the rocks are the same, even the pine-nut trees are still there only very slightly larger. The train goes under the highway and you can watch it pass the new steel enginehouse, just where the old V&T wooden house stood (the pit is still there). The train whistles mournfully and approaches the old town, still clinging to its hillside and awaiting newer bonanzas yet to come. The train goes right between old mine buildings, under trestlework, past ore dumps. For now it stops at the blocked south end of tunnel #6. Soon it will chug all the way into Gold Hill station.

Photos opposite:

Top left: A pair of V&T 2-6-0's on the Crown Point trestle at Gold Hill in 1885. The train is headed upgrade toward Virginia City. *Photo collection of Ted Wurm.*

Top right: McKeen Car #22 caught out of her special shed. The photo was taken at Reno, Nevada in 1938. *Photo collection of Al Graves.*

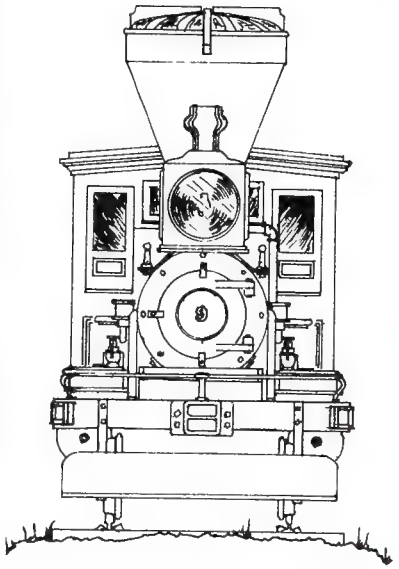
Center: The "Reno" being turned on the Virginia City turntable on the last run before abandonment on June 4th, 1938. Notice that lovely little roundhouse. *Photo by Ted Wurm..*

Bottom left: V&T train #1 arriving at Carson City from Reno with the work equipment picked up along the way. The foreground car is #6 lettered "V& T Construction". It is former boxcar #1003 and was painted yellow. The next car in line is the tunnel car, then two flats, and cars #13 and #18. *Photo by Ted Wurm.*

Bottom right: A quiet Gold Hill station scene taken from the tender of #11 as she approached the station with a single boxcar loaded with concentrates. Flanger #2 is on the left waiting in vain for the next winters snows. The flanger would never be needed again because the line was abandoned that same day on June 4th, 1938. Over #11's stack is the crumbling Miner's Union Hall with the old firehouse alongside. The tracks to Virginia City went between these buildings. The station was painted red. Notice the curving right-of-way and the light rail. This view could have been taken in the 1890's and demonstrates the beauty of the vintage standard gauge scene. *Photo by Ted Wurm.*

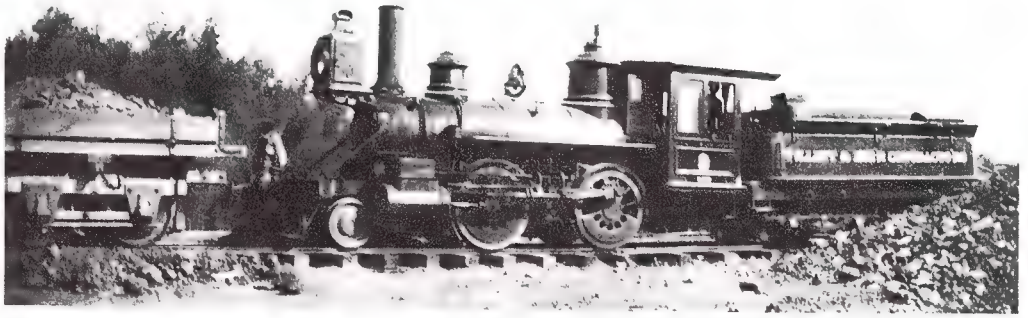
Material for this article is largely taken from a book currently under preparation by Ted Wurm and Harre Demoro, titled Virginia & Truckee: the Solid Silver Short Line. *The book will be published later this year by Trans-Anglo Books. It will contain many features of interest to railroad modelers: hundreds of photos, plans of unusual engines and cars and structures, maps and diagrams, photos of nearly all V&T locomotives and passenger-train cars, and train operating details that have never before appeared in print. There will be data on mines and mills, with illustrations. There will be a chapter on the peculiar events of the abandonment in 1950. This will be a factual history with 30,000 words of text, rosters, and an index.*

Virginia & Truckee Railroad.

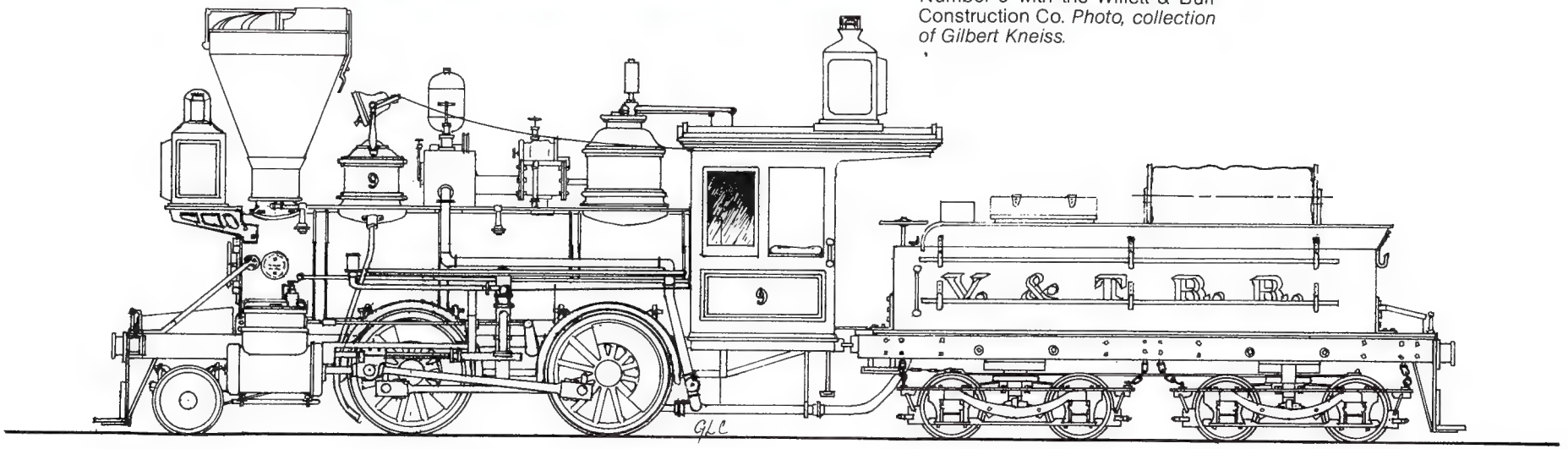


Nº 9 I. E. JAMES

Baldwin Locomotive Works ~ 1870



Number 9 with the Willett & Burr Construction Co. *Photo, collection of Gilbert Kneiss.*

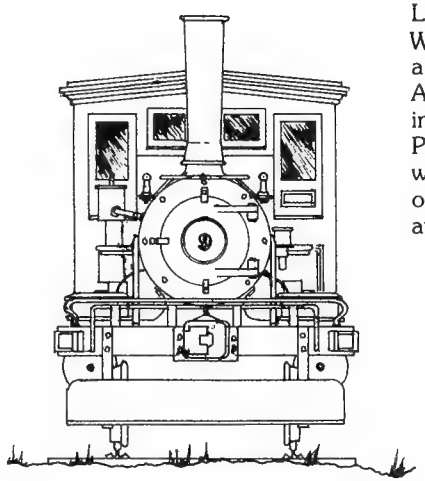


circa 1897

VIRGINIA & TRUCKEE No. 9 "I.E. JAMES"

Data from Stephen E. Drew

The Virginia and Truckee #9 "I.E. James" was used as a regular Carson City switch and wood yard engine. She was also used for limited main line service between Carson City and Mound House, Nevada. Because of her tendency to start fires in the woodyards, #9 was fitted with a Krombig Steam Fire Pump in 1873. In 1900 she was rented to the Boca & Loyalton. She was retired in 1905 and sold in 1907 to the Willett & Burr Construction Company in Oakland, California and converted to an oil burner. In 1909 she was used in Auburn, California (see photograph). In 1910-11 #9 was used in the construction of the Northwestern Pacific with a Southern Pacific tender. After turning over in 1911 she was equipped with a new SP cab. She was used in 1921 for the reconstruction of the Stone Canyon RR in California. Number 9 was scrapped at U.S. Steel in Decoto, California in 1946.



This rare photograph from Al Grave's collection shows ex-V&T #9 in use by a contractor in Auburn, California. The photo is dated 1909.

Scale: 3/16 inch = 1 foot **SCALE**

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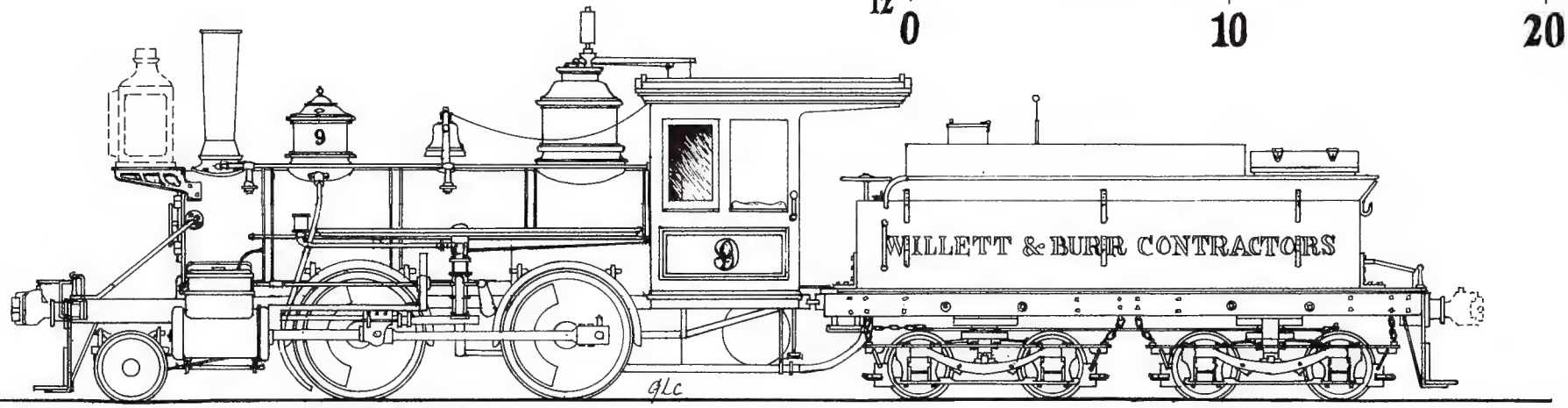

DRAWN BY GARY CAVIGLIA

circa 1909

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HOn30 "Two Foot"

by Daniel L. Johnson
Photos by F.B. Kelley

Kingfield, Maine was the home of an interesting pint-sized yard for the Sandy River and Rangeley Lakes, including a covered depot, a three-stall enginehouse and a turntable.

In order to build a reasonably small shelf display model of the Kingfield yards, I chose HO as the scale. Even so, it was necessary to compress the prototype measurements, considerably shortening the track footage and the overall length of the depot. The size of the layout is 48½ inches x 18½ inches, and it fits nicely over the mantel of the family room fireplace.

For many years I've been experimenting with HOn30 locomotive modeling. At the beginning I was content to come close to the two-foot flavor with freelance designs. But in recent years I have found it more fun to insist on prototype accuracy. The four SR&RL engines pictured here are scratchbuilt to fit over N gauge mechanisms, so that I have to live with the scale six inch gauge error and the lack of outside frame construction on engines 15 and 24, but otherwise all dimensions are correctly represented. When HOn30 is chosen, it is necessary to compromise with absolute accuracy right from the start. But the challenge and fun of it is to reduce the compromising to the minimum.

Engine #5 is based on an Atlas N gauge O-4-0 model #2185. Though engine #6 is prototypically identical to #5, I chose a Rivarossi 0-4-0t model #2187 as the mechanism for this engine. Engine #15 is built on Bachman's 0-6-0 USRA Switcher #4801. The one major drawback to this model is the difficulty in fitting a trailing truck to the chassis, a problem I'm still trying to solve. Engine #24 is based on Arnold-Rapido 0-6-0 Steam Switcher #2260.

Each of the locomotives were scratch-built from brass, basswood, cardstock and brass castings. Lead trucks are Kadee pilot conversions, and trailing trucks are either Atlas part #10537 or modified Liliput HOn30 trucks.

The track is Atlas N gauge flex track, well-buried in Campbell ballast to camouflage the ties. True perfectionists might insist on hand-laid rails at exactly two-foot gauge, and home machined mechanisms to match, but given my own time and ability limitations, I find HOn30 an exciting compromise without which I could be only an armchair two-footer enthusiast.

Photos opposite from top:

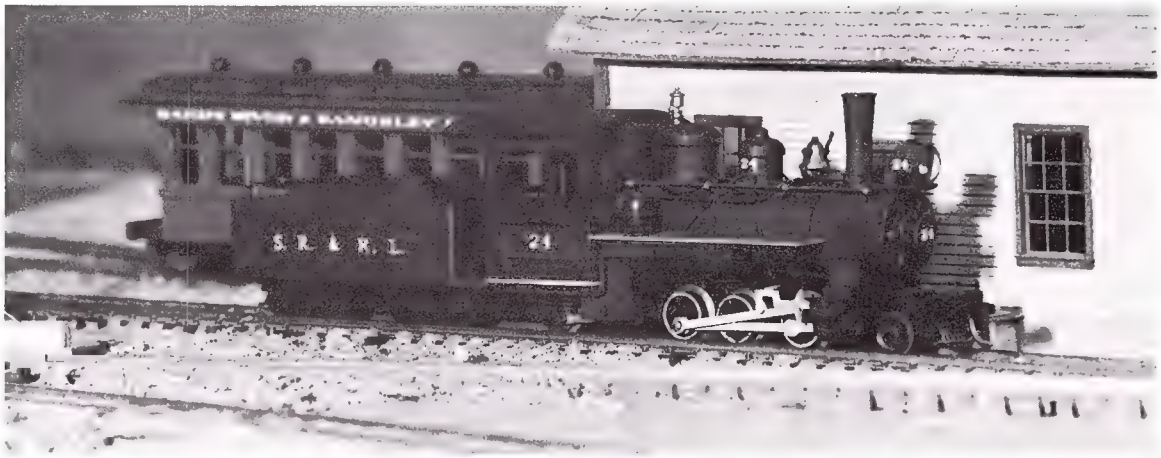
Sandy River & Rangeley Lakes #6 was built out of styrene and wood over an N Gauge Rivarossi 0-4-0t #2187 mechanism.

Number 24 was built on an N gauge Arnold-Rapido 0-6-0 steam switcher mechanism. She should have outside frames but this is a discrepancy worth living with in order to have the locomotive rather than an arm-chair pipe dream.

Number 15 was built on a Bachman USRA 0-6-0 switcher. She captures the "feeling" of the prototype even though compromised.

An end view of the Kingfield scene. The charm of the New England two-footers is evident in this HOn30 model.

An overall view of Kingfield. It is only 48½ inches long by 18½ inches wide and fits neatly over a mantle. This is an excellent way to build a scene if you are short of space.


S. R. & R. L.
21

The MODELMAKERS NOTEBOOK

by AL ARMITAGE

The Evolution of Stovepipe Canyon

This whole project began with the small timber bridge shown in photo 1. This neat little structure was built in HO scale from an article by Jack Work many years ago. First I built some appropriate scenery around it. I put in the stream bed and the embankment. That was all I planned to do at the time. But, I had all these nice rock molds just begging to be used and the bridge scene seemed like a perfect excuse to do something with them. The idea took flight and resulted in Stovepipe Canyon, a rather spectacular example of what can be done with the rock-casting technique described in my last column.

This type of rugged terrain offers a most impressive use of rock-casting techniques but smaller ledges, outcroppings, and rock cuts are equally effective scenic details suitable for almost any kind of terrain. One or two castings can be easily added to some kinds of existing scenery without much disturbance. Anything approaching the magnitude of Stovepipe Canyon requires major alterations and should be thoroughly planned beforehand. The smart thing to do is to build a small-scale mock-up of clay to see if your ideas work before you tear up your layout.

Scenery such as this is a major undertaking so don't kid yourself that you can toss it together in a couple of weekends. I spent close to 200 hours building the Canyon, not counting the time put into the bridge section.

My scene is entirely a product of my imagination. Indeed, it would be very difficult to model a prototype rock formation of such scope with any kind of scale accuracy. However, a real cliff, gorge, or other formation, can provide the inspiration for a scene even though you may have to change it around. Railroad books (and other books as well) are full of photos that suggest all sorts of possibilities for rock work on a model pike.

Once you've established the size and general contours of your scene you'll need a framework to support it. Mine was built of pine strips and was about 20 inches × 40 inches in size. This framework was joined to the bridge section later. You'll note that I used aluminum screening as a base for the plaster, a method of construction considered rather old fashioned these days though I still prefer it to the "hardshell" method.

Once you have formed a general idea of what your formation will look like, you have to turn this image into reality. Since the first few casts you put in place will set the pace for the rest of the formation it is important to start off right.

You need to decide on a pattern to serve as a guide throughout construction. For example, if your rock casts suggest rock strata of the horizontal, or angled type, then this feature should be preserved consistently. Photo 2 shows one type of such strata and how I got around the problem of having too much repetition in such a large area. Having progressed this far, I decided a greater variety of configuration would be more interesting so I created the "fault" line as an excuse for the change. On a smaller formation, this would not have been a problem. In my case, it taught me to think beyond the little

Photo 2. The right wall of Stovepipe Canyon in its early stages. The outlines show how the casts were arranged.

Photo 3. The same wall shown in photo 2 with the gaps filled in. The difference in strata is due to the "fault" resulting from an upheaval in the earth's crust causing a shift in strata levels. The line of the fault is indicated by the white line.

Photo 1 opposite. Stovepipe Canyon modeled in HO scale by the author.

section I was working on at a given moment and to consider the overall scene. I suggest you experiment with different combinations of casts, setting them loosely in position, until you strike one that seems to fit. Visualize the whole formation based on this arrangement and, if you think it is going to work, go ahead with it. The formation should look natural to your eye. If you use too many kinds of rock in one formation you'll end up with an unnatural hodge-podge.

Perhaps the most important thing to keep in mind is that the cast should be fitted into place in such a way as to generate the feeling of a solid mass rather than a patchwork of unrelated shapes. You don't want your cliff to look like a pile of stones! Photo 2 shows how I created a solid mass out of separate casts.

In an extensive project there is bound to be repetition of certain casts. Though I used ten molds for the entire scene, a large percentage of the casts came from about half this number. This is not too apparent in the photos for several reasons. Any configuration may be repeated in a number of places, if it is not unduly conspicuous, by its highly distinctive shape. The rocks surrounding it will be different each place it appears. I warned you last issue against taking molds of too distinctive patterns.

By merely reversing the normal position of a given cast you can double the effective number of configurations. Add to this the variations possible through breaking and rearranging parts of one cast (or combining pieces from several) and you can readily see why frequent duplication shouldn't be a serious problem, even if you only have a few molds. Judicious use of shrubbery and trees also helps to break up too-similar patterns that suddenly appear in the finished scene.

It isn't necessary to have the casts fit together perfectly, as you can see in Photo 3. I filled the holes with bits of broken casts and plaster modeled to match the adjoining rocks, as shown in Photo 3.

For attaching the casts to the base, use a slightly wetter mix of plaster than you used to make the casts. A stiff mix doesn't bond quite as well to the casts or to hardshell. This is one reason I prefer to use screen for the base since the plaster squeezes through and locks tightly around the screen. The screen is not so good, however, if you should ever want to change the scenery. Alterations are much easier to accomplish with hardshell.

Don't forget to add some dry color and a shot of vinegar to retard setting. Again, mix a small batch at a time using the same can and mixer as before. Follow the same procedure as before, adding a few drops of water at a time until the right consistency is reached. Fresh plaster sticks better to damp casts so, if yours get bone-dry, dunk them in water for a minute prior to use. I used a putty knife to apply the plaster, putting a few dabs on the edges of each

Photo 4. Stovepipe Canyon in the final stages of detailing. The wood structure spanning the gorge is a water carrying flume.

Photo 5. A general view of Stovepipe Canyon under construction. The framing is ¾ inch pine and the screening is aluminum.

cast, then pressing the cast into position as previously determined. Any plaster that squeezes out should be scraped off. It isn't necessary to set the casts in a complete bed of plaster. Three or four points of contact are enough as a rule to hold them in place. Once you have filled in the gaps, as in Photo 3, the whole mass becomes a pretty solid homogenous structure.

For filling the cracks and small gaps a small spatula, knife, or even a flat stick, is useful. All such areas should be given some sort of texture so they look like part of the rock. I used a paint brush to clear away loose plaster particles after this patching operation.

If your scene includes fallen rocks, or boulders, embed them in plaster so they will appear buried in the ground. Should they come loose after the plaster has dried secure them with white glue. Small stones, gravel, etc., are held in place this way too. The bottom of the gorge, in Photo 4, was worked up in this manner. The large rock by the little tree is a real rock. In front of this, next to the tall pine is a plaster rock. The bed-rock, farther back, is also plaster.

When your masterpiece has thoroughly dried out, you will probably discover a variety of tones in your rocks. Some may be too light, which can be corrected easily. If they are much too dark, you've got a problem. You don't want all the rocks to be exactly the same color but there shouldn't be too wide a latitude in tones. Most real rock formations feature a short range of tones. Weathering, and the minerals in the rock affect the color. Recently blasted rock is often lighter than the same rock exposed to the weather for a long period of time. Iron oxides give rock a rusty color. Other minerals produce tones of blue or green. Quartz crystals impart sparkle to a rock face while a vein of quartz may form a white streak across a ledge.

The samples you brought home from your field trip may help you decide on colors. Study local formations of rocks similar to your model if possible. Color photos, can be valuable aids in choosing colors for your formation.

Use the same tempera paints you used for the casts and mix the colors dry. Then add a small amount of water to make a thick paste. The dry powder does not dissolve readily so make sure all of it is absorbed into the paste. Take a small amount of paste and put it in another container (paper cups make excellent paint pots for this purpose) and add enough water to make a very dilute solution. This is more of a stain than a paint and should not cover the surface with an opaque coating. Add a drop or two of household detergent to act as a wetting agent. Use a wide, flat brush to apply the stain. The plaster will soak it up like a sponge so make plenty of the colors you need most. The stain will look much darker when wet so try a sample on an unused cast of similar tone to your formation and let it dry well before proceeding. If the tone is not dark enough, go over the cast with a second coat. It is easier to control the density of color this way than by trying to mix the exact shade of color wanted.

I usually work with two color solutions, gray and brown, one a little darker than the other. By using two colors, and a combination of both a nice of variety of tones and values is possible.

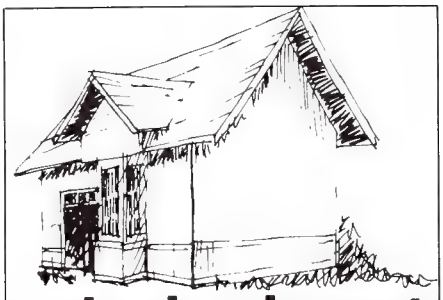
Artificial shadowing can be achieved with dark tones and, if a particular rock is too prominent, it can be subdued with dark tones as well. The main advantage to using a thin stain, over opaque paint, is that the porous quality of the plaster is preserved, making the rocks look much more real.

With the formation colored to your satisfaction, all that remains is the addition of special characteristics such as mineral colors, darker accents, weathering, and a few highlights.

These special effects can be done with the dry powder tempera, mixed thick, or with casein, which I prefer. Casein is resistant to moisture and more durable than tempera. Either paint should be applied with a small, stiff-bristled brush using a dry brush or scumbling technique. This is most effective for highlights, moss effects, etc. The casein colors I used were Raw Umber, Burnt Sienna (for rust), Yellow Ochre, and Thalo Blue. All greens were mixed and the off-white, for highlights, was made with a touch of Ochre added to white. Further information on color mixing appeared in one of my columns in the Sept/Oct 1979 **GAZETTE**.

All that's left to do is add whatever you wish in the way of trees, bushes, grass, structures, *et al* to complete the scene. The giant redwoods, in Photo 1 were made of plaster, over a wood core. The total depth of the scene is about three feet.

AL —o



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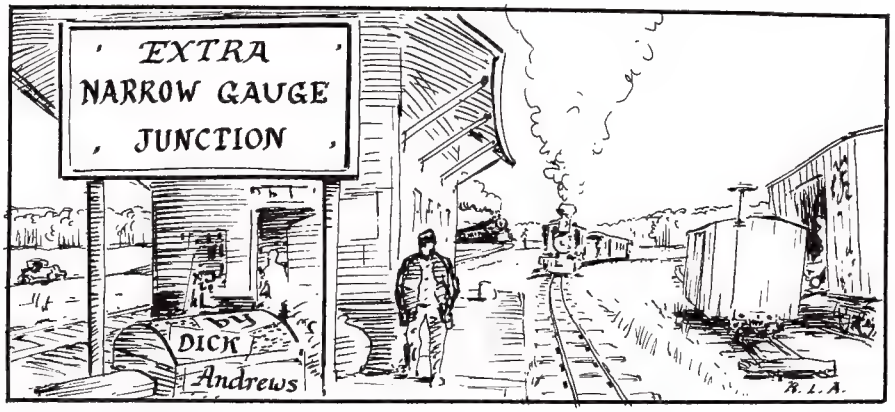


THE BRIDGTON & HARRISON AS I REMEMBER IT

by Dick Andrews

Let's make a steam run on the old Bridgton & Harrison Railway. I remember a trip I made with my fiancee and my brother in 1938. It is a sunny afternoon in late August and the big job for the day is to haul out the little girls of Camp Wabunaki on the edge of Hancock Pond. They have waved all summer at the little two-foot gauge trains which run across the camp ground right past the tennis courts, Now, the middy blouses and bloomers have been packed in the steamer trunks the girls brought to camp. The girls will be waiting in their city clothes for the ride down to the junction and the afternoon Maine Central train to Portland. From Portland, they will board Pullman sleepers for the trip to their distant homes.

On the Bridgton road, it has always been called "the junction", the spot on the Saco River valley flood plain where the little road meets the broad gauge. According to theory, a railroad such as the Bridgton & Harrison should not have existed in 1938. It was plain to see way back in the 1880's that a "break of gauge" would prevent a light narrow gauge line from being an economic success. Someone forgot to explain this to the management of the little road, which soon became a gilt edged stock and indeed paid 6 percent dividends right through to 1924. A town like Bridgton, with so much inbound traffic in fuels, feeds and other materials for a wide community of busy farms and shops, ought to have had a standard gauge branch. Only . . . it had an independent two-foot line of its own because the cost of the small gauge was very much less than broad gauge. The big savings in capital investment more than paid for shoveling over the coal and feed at the junction. The kerosene and other oils for the town poured across, and the large "head end" business in mail, express and other items hiked across the plank platform just as it would had the little road been "just as wide".

On this golden afternoon in 1938 we need not ask the "why's" of it all; the road is there. One cannot see the yard from Bridgton's Main Street but there is the diner at the corner by the movie house; it is old combine #25. We turn left down a back street and find ourselves aimed right at the station and the track. The end of the track is just short of the bridge across Willet's Brook.

The whole delightful yard and headquarters of this tiny system lie inside a bend of the brook. There is the big old station with its plank platform and the freight house beyond it. To our left the land rises and on it stands the back of the high grandstand for the ball park. Just by it are the Socony tanks served by the two midget tank cars. We enter the station and buy our tickets from Mr. Maurice Heath, who is general manager of the road, ticket agent, station master, agent of Railway Express, freight agent, and everything else that one man can do in and around the station of a small town's railroad. And Mr. Heath keeps busy, for this road has a twice or thrice daily round trip to the junction with mail and express and passengers – even if it has been done mostly with a rail-bus during the past decade. Number one bus – the Chevy sedan body on narrow gauge wheels with its two-wheel trailer – has been bumped mostly to track maintenance work by #3, the Reo bus bought from the defunct SR&RL and loaned to the road by Ed Meade.

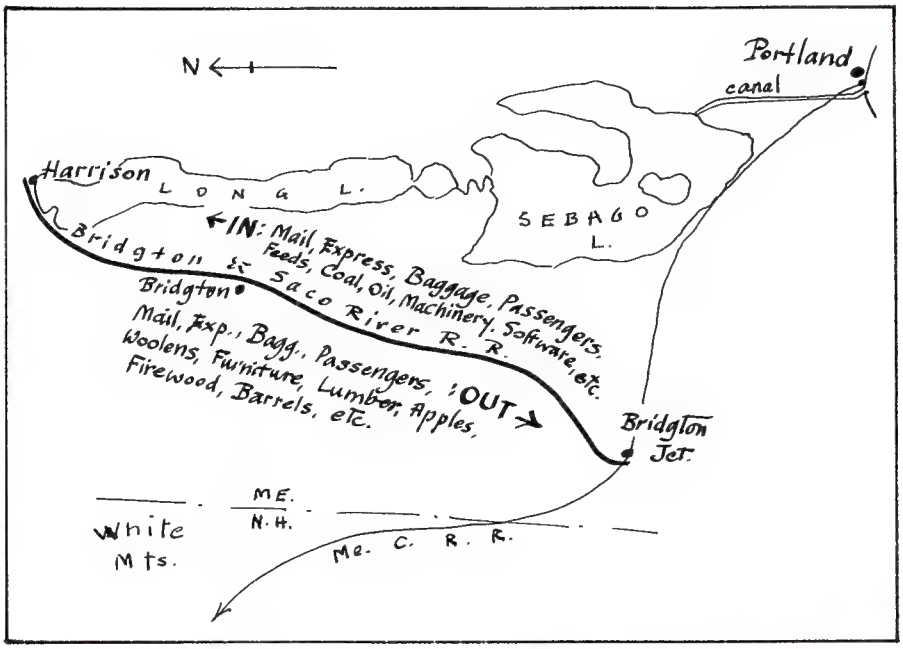
As we step off the wooden platform and across the tiny station track, we leave the domain of Mr. Heath and enter that of Everett Brown. There is the car repair shed just opposite the station, and beyond it the four-stall engine house, turntable, and machine shop. Mr. Brown is master mechanic, road foreman of motive power, chief engineer and machinist, and everything else to do with the care of and operation of two little Forney-type steamers, rail cars, and a small fleet of passenger and freight cars. We first met him awhile ago when we stepped into the engine house to look at the two locomotives in their stalls, and a voice had growled from the shadows: "They're not toys . . ."

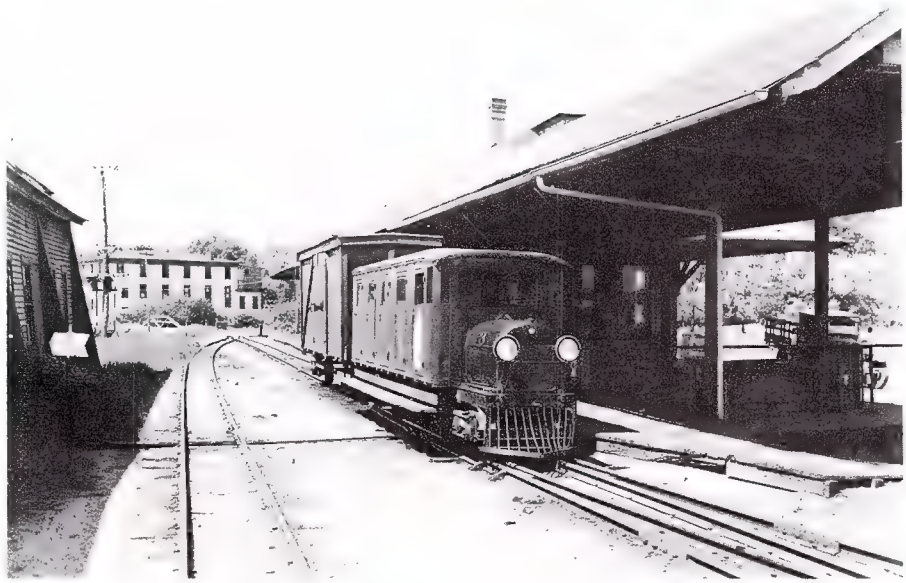
Number eight is going to make the run and she is mightily alive as the blower roars harshly and a column of smoke goes up the smoke jack. She is identical to her sister, Number seven, except for her steel cab and heavier framing system. She is the last two-foot gauge steam locomotive built for an American road. Baldwin outshopped her in 1924 and she weighs 38 tons and has 35-inch drivers tucked away behind her outside frames and cranks, rods and valve gear. She is of the type of 2-4-4T Forney engine developed on this road for two-foot gauge, she and her sister engine, and the sadly lost SR&RL number ten, represent the last and heaviest class of Forneys for Maine. Before this day is over, we will have a couple of spectacular demonstrations of how steady-riding this type of engine is. None other approaches it.

The Bridgton engine shed is not curved around the center bearing of the turntable; it is a rectangular shed originally made with three stalls, and the two outer stall leads exit straight and then curve to line to the table. Later a fourth stall was added and its lead bypasses the table in joining the yard fan. A short stub track from the table leads to the door of the complete little machine shop, and a dolly car permits heavy items to be moved between any engine house lead and the shop. Because Maine winters are cold, it is a handy economy to keep the yard water tank warm by having it on the engine house roof. The far corner of the house got shaved as an easement for the siding beyond it as it curves in to the feed mill.

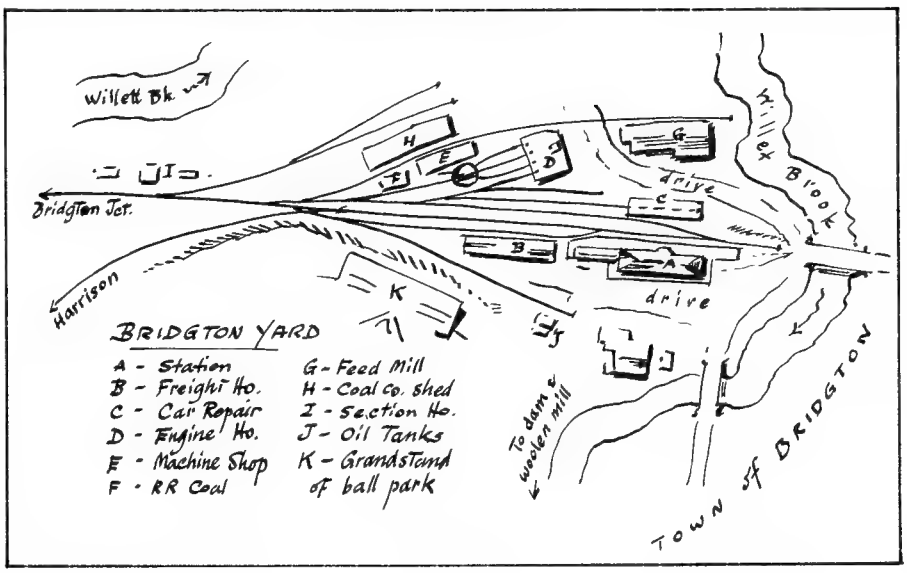
The little road keeps up a grand old tradition which so many systems (to their shame) did not. Engines are backed into their stalls (each has its own) like the proud little horses that they are, ready to head out as the door is opened for another day. None of this heading them in like so many cows at milking time. Early photos of the engine house at Bridgton show chains lying out on the lead tracks from inside the doors. Back in the early 1880's those engines each cost $3000 and the people of the town wanted to be able to pull them out to safety if the engine house got on fire.

How is this little road still alive and well in 1938? Why is there such an air of quiet pride in this late survivor of two-foot gauge? (Of the two-foots, only the Monson





The old Strong to Kingfield rail bus from the SR&RL, loaned to the B&H Ry. by Ed Meade, ready for the afternoon run to the junction.



RR is also still alive in 1938 and it no longer runs a regular scheduled service.) Bridgton runs a regular schedule and will, right up until the very end. For one thing the passengers and crew do not have the easy geniality of logging men or miners on "extractive" short lines elsewhere. These people are not transients and they take their tiny road very seriously. Bridgton town is the market center for a community of old farms. A map of the nearby town of Waterford made in 1880 shows about one hundred farms, each with the name and house of the farmer carefully noted. Waterford township has four villages; these are shown merely as locations and house owners are not identified, and each noted as per "Waterford P.O.", etc. The farms were the life of the area. Villages were merely where one went for the mail, staple supplies from the store, and perhaps some work from a blacksmith.

This land was all a wilderness traveled only by Indians and trappers until after the American Revolution. Then strong men came up from "the Massachusetts" and opened up the hillside farms. They cleared the fields of trees and rocks. They hewed beams twelve inches square of hard pine and oak, and put them up as house and barn frames with driven hardwood pegs. Then they clapboarded and shingled. They made their own brick for chimneys and their own paneling and trim. These self-built houses were not only strong and lasting; they were elegant and beautiful in proportion as well. They made their own furniture and utensils of wood. (The famous Yankeee habit of whittling was simply the learned habit of youth – of making all needed items with the jack-knife and the draw-knife around the fire at night.) These pioneers kept sheep and grew flax and made their own clothes; they kept cattle and made their own shoes; they had oxen and thus great power to move stones and trees. They came very near to total self-sufficiency and had a huge pride in having done so. Many of them had Latin and some Greek. They took pride in their crafts, their self-sufficiency, their learning and their railroad.

Now number eight is ready to move. Everett Brown opens the cylinder cocks and she walks out of her stall and down the lead onto the table. How quiet steam power can be. The table rocks a bit on its worn bearings, and teeters as the engine is variously distributed onto it. Then she is across and at the coaling shed. George Sargent and others are dumping tubs of coal into the tank by means of the crane. Everett oils around. We note a vague dent in her right side cab sheet. Everett spots us looking at it. Looking at us hard under his brow, he tells us that he has spent a lot of time on that dent but it just won't come out entirely. That is where she came down on a rock the day in 1932 when she tipped over on the Harrison branch due to a soft spot in the roadbed. "The Harrison branch

Everett Brown eases Number eight out of Bridgton, cylinder cocks open and whooshing wings of steam vapor. The wires from the end of the platform roof are the telegraph wires set parallel to the track at the junction; they were Bridgton's first instantaneous communication with the outside world.

is now gone," he says with a sigh. It begins to occur to us that Everett has spent a lot of time on these engines when in truth he is not full time on the railroad and must make ends meet by operating a garage across town. The narrow gauge is not a job for him, it is a passion.

We wonder what did Bridgton want with a narrow gauge railroad in 1883? This was never a logging area like northern Franklin County. There were no huge stands of timber to be bought up by Boston money men, who would then build rickety trams and hardly heavier "haul" lines out to the moving mills, and then to the local valley line at Phillips and Strong for the haul down to wide gauge at Farmington. There was logging around Bridgton, yes, and milling, but never the heavy extraction that leaves a countryside bare. The farms already had the land in a proper steady balance. There were no quarries of slates such as fueled the Monson. There was no large soldiers' hospital such as gave a purpose to the tiny Kennebec Central. And Bridgton definitely was never into the "build or bust" gambit that the Wiscasset crowd got into, trying to tap some up-country source of traffic into their port, over their road. Bridgton never built an extra foot of track.

The early subsistence farming did not require much transportation. But as the

A view of Bridgton yard from the throat drawn from a Brownie photo taken by the author in 1938. Behind the telegraph pole is the freight house; the station peeps out from behind it, and the car shop shows with its doors open. The locomotive coaling shed partly hides Number eight which is showing exhaust from the blower, as she is about to emerge from the engine house. The feed mill roof shows behind Eight's smoke, and the shop is to the left. The coal sheds lie to the left of the shop and the ball park and grandstand are on the right.

19th century waned, the value of all-weather transportation took hold. Bridgton is on a waterway system happily used by the Indians in their canoes. One can start at Waterford and paddle down a creek to snakey Long Lake; 15 miles down country one is into a kinky river that soon empties into great Lake Sebago. By 1832 a canal had been dug a few miles further to the ocean. Sixty foot sailing-towing barges could come up to Bridgton and Harrison from the sea. Only this was *not* all-weather; winter shut it down for months. Neither was water transport. When a railroad was built next to the canal in 1870, the ditch shut down. So Bridgton built its railroad a few years later, and the twice or thrice daily round trips to "the junction" began. There was the mail truck, the express and parcel van, the passenger bus, the merchandise forwarder all running rapidly and efficiently in all weathers on two-foot track. This service ran without interruption until the end in 1941. So did the steady freight traffic inbound in feed, fertilizer, coal, oils, and machinery, as well as general soft wear and hardware in large lots for the stores. Outbound went apples in season, lumber, furniture, shooks (barrels in knocked down form), woolens, canned foods, and many other items including firewood. Two engines (and sometimes three) were often in steam on the road through the busy years. Every standard gauge carload in or out was ready to fill two or three narrow gauge cars.

Let's get back to our 1938 steam run. Everett has now lit up a stogie cigar. He loves to run a steam locomotive, and he loves a good cigar; to run a two-foot gauge loco with a cigar clamped in his mouth is then elegant. He has coupled an assortment of cars onto his train and is ready to whistle off for Hancock Pond and Wabunaki Camp. There is the three door baggage car #30, the way car #101, the little '83 Laconia twins in batten siding coachwork "Pondicherry" and "Mt. Pleasant" (numbers 15 and 16), the #17 with her double-sash windows topped by arched stained glass *a la* interurban, and #18 which came over from the WW&F years ago. Each car has single seats on either side of the center aisle and handsome work in woods of the era.

Two impatient toots on #8's whistle! My fiancee and my brother and I make for "Pondicherry" and easily step from the ground right onto the end platform. A snatch of the ¾ size MCB automatic couplers and we are off. Up past the section house at the yard throat and soon we are rattling along parallel to Portland Street south of town.

Next issue I'll continue our 1938 steam run on the Bridgton and Harrison.

Dick

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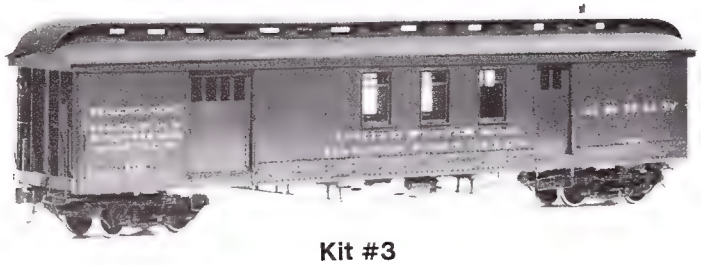

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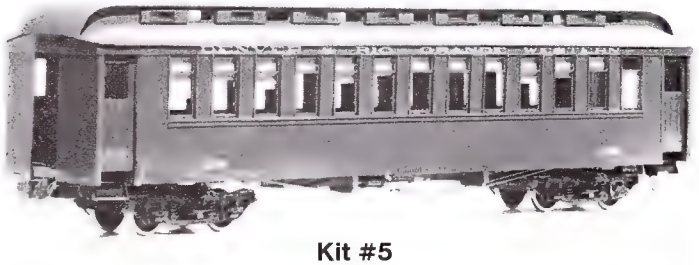

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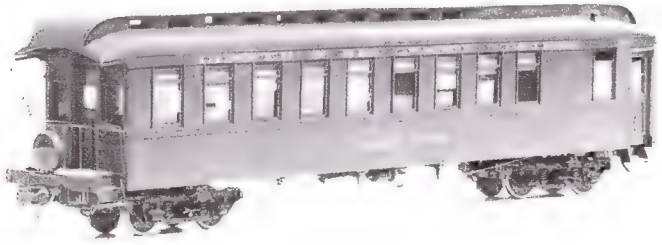

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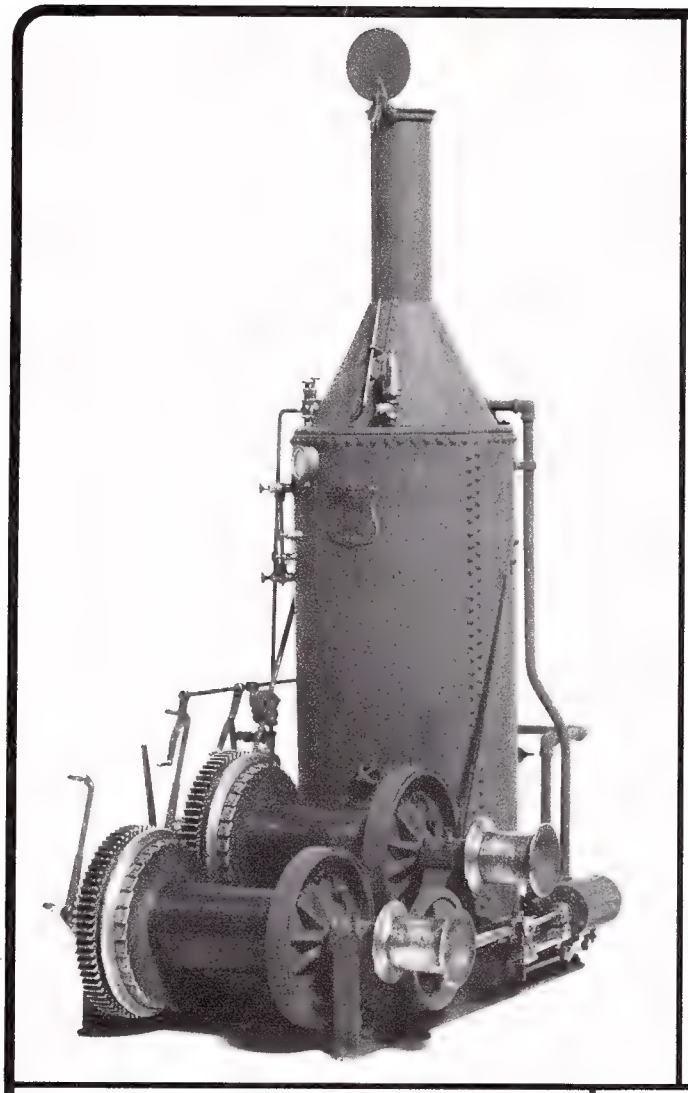

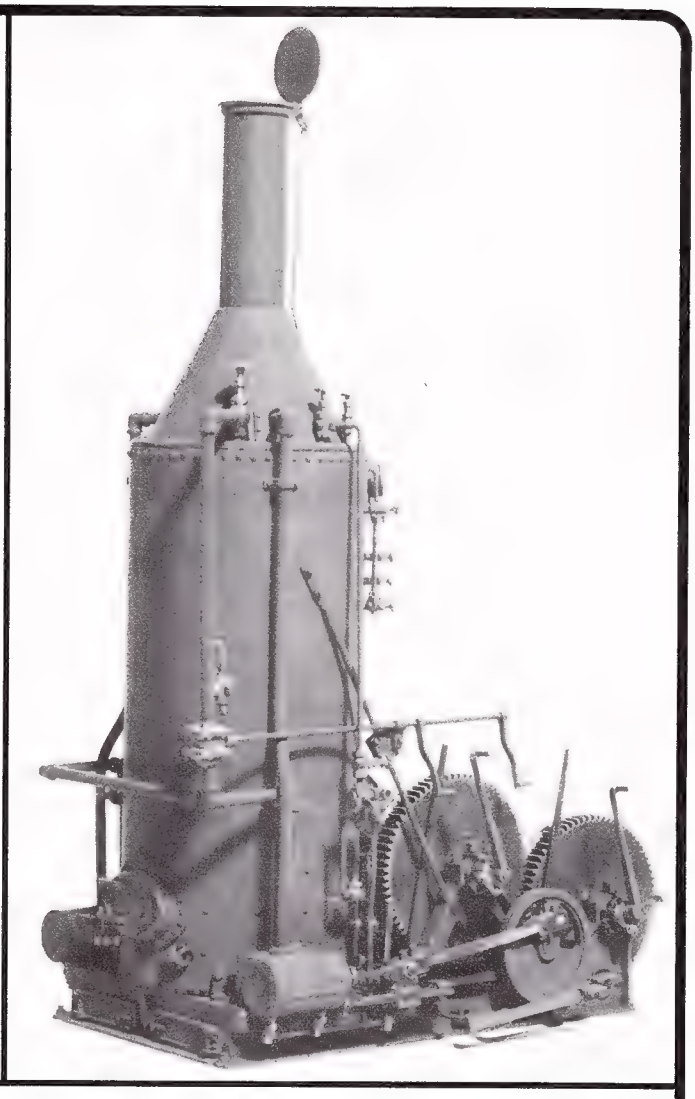

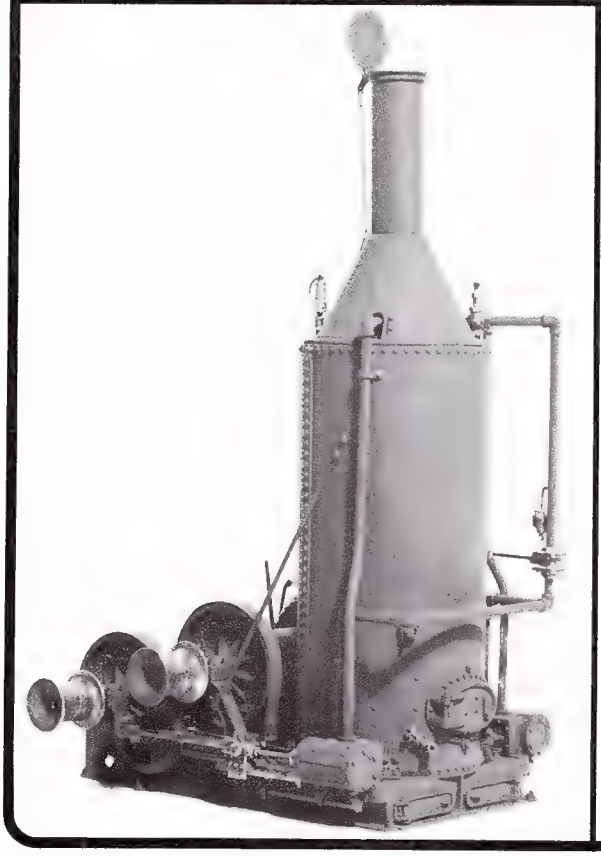

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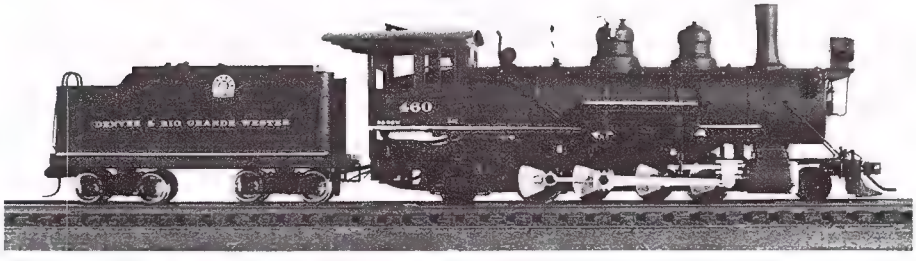
Modifying a MDC 2-8-0 into a K-27

High Honors Winner

by Dennis F. Gilder
Photos by the author

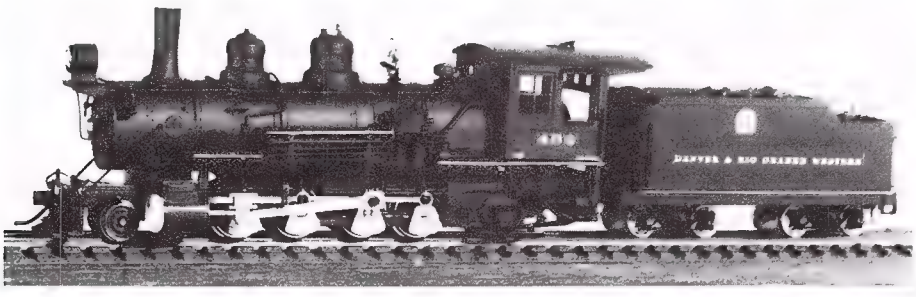


After I saw Allen Brewster's K-27 drawings in the March and June, 1973 issues of **MODEL RAILROADER** I decided to convert my MDC 2-8-0 into an HOn3 K-27. I assembled the chassis and added a brass scratch-built rear end. I was not sure whether the rear section pivoted or not so I turned a pair of nylon wheels. I carved a space in the under frame for the wheels and mounted them on the rear chassis as a trailing truck.

I cut the smoke box saddle through horizontally and reduced it to the correct height. Then I refitted it with ACC. I stripped the boiler of all detail behind the smoke box such as the domes, boiler bands, steps, handrail extensions and running boards. I carefully marked the new positions and drilled fresh holes. I turned the domes and stack and other parts on a lathe.

I extended the boiler with styrene card. This material was also used for boiler bands, steps, etc. The running boards were made from brass. I cut out the sections where the turned tanks and Calscale pump were soldered on. The top walks were soldered to the tanks and the cooler pipes bent up and soldered to the top running boards. The running boards are spaced at the front by a cross-piece under the boiler. The rear end of the running boards rests on the remainder of the old boards by the firebox and the cab rests on the new boards.

I made a bracket for the headlight and the markers were retrieved from a Varney Caboose. The bell is by Calscale. The cab is fitted to the rear end of the original boiler and extra bands were wrapped round the reduced boiler shape to fill out the hole in the cab front. Pipework was fitted in keeping with the prototype. The valve chests were heightened and Kadee couplers fitted. The tender was correct except for the rear ladder. New handrails were fitted. I sprayed the engine and tender with Floquil Engine Black and lettered it with Champ decals. My apologies for the missing "N" in "Western"; it stuck to the tweezers. I didn't paint the counterweights in order to emphasize their unusual design.

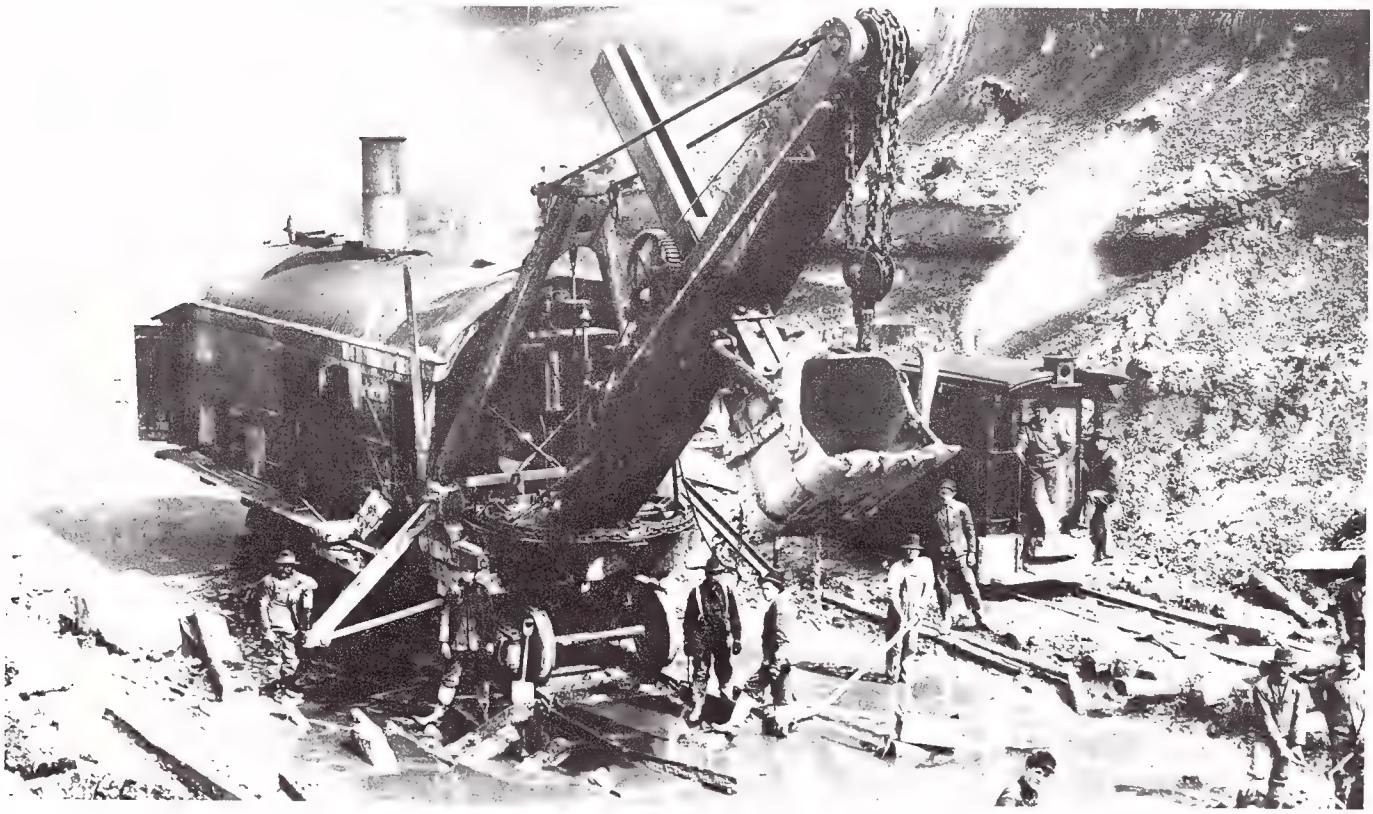


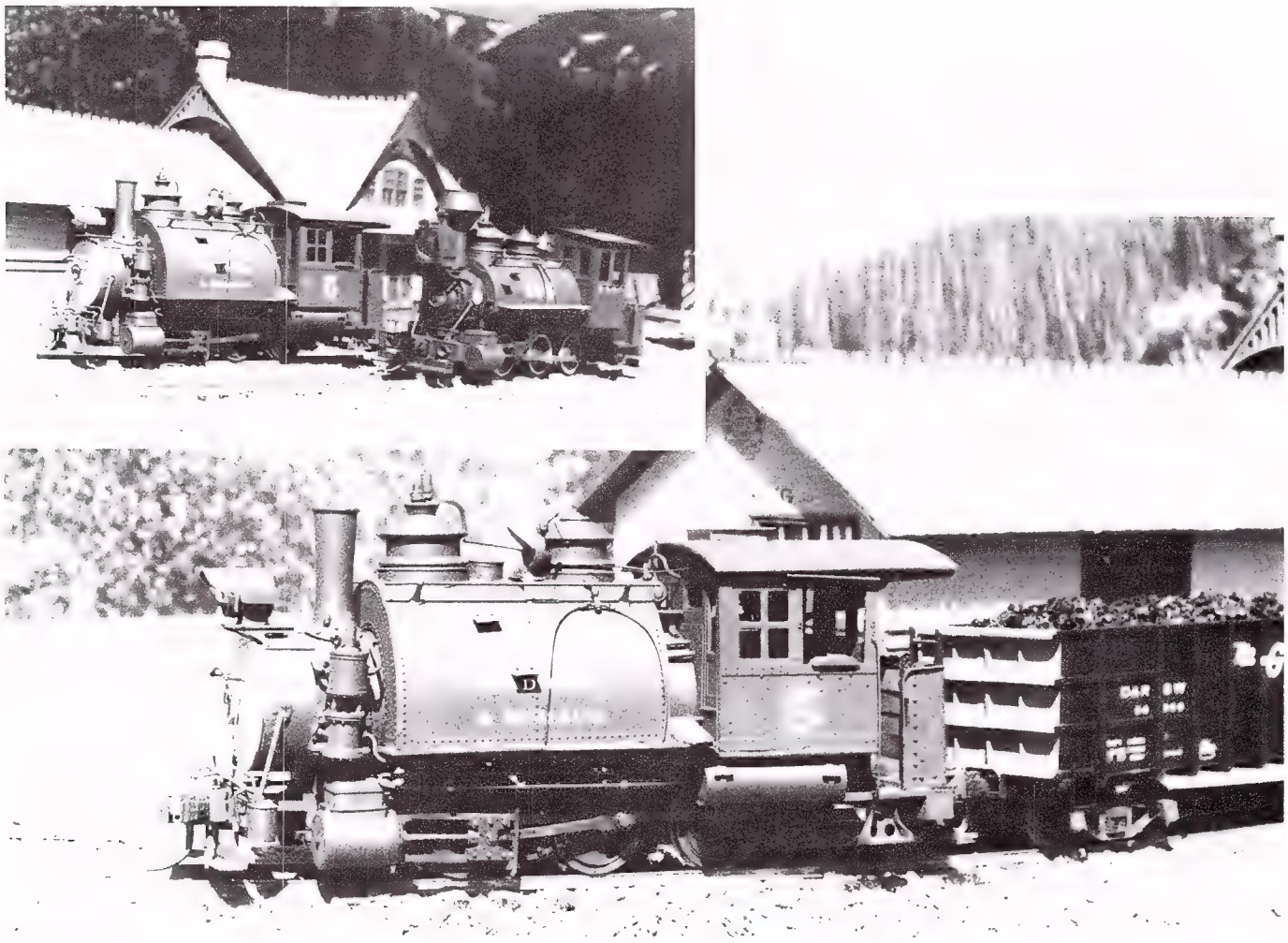
GAZETTE GALLERY

Edited by Gene Deimling

Goods news from the "Mother Lode Country", West Side is running again. Operation for 1980 is scheduled for weekends from April through the late fall. The #7 Shay is fully restored after years of static display near Sonora, California. The trestle is a new addition as is the track leading beyond Turnback Creek. The new track goes through the former lumber storage area west of the mill pond. *Photo by Ted Wurm.*

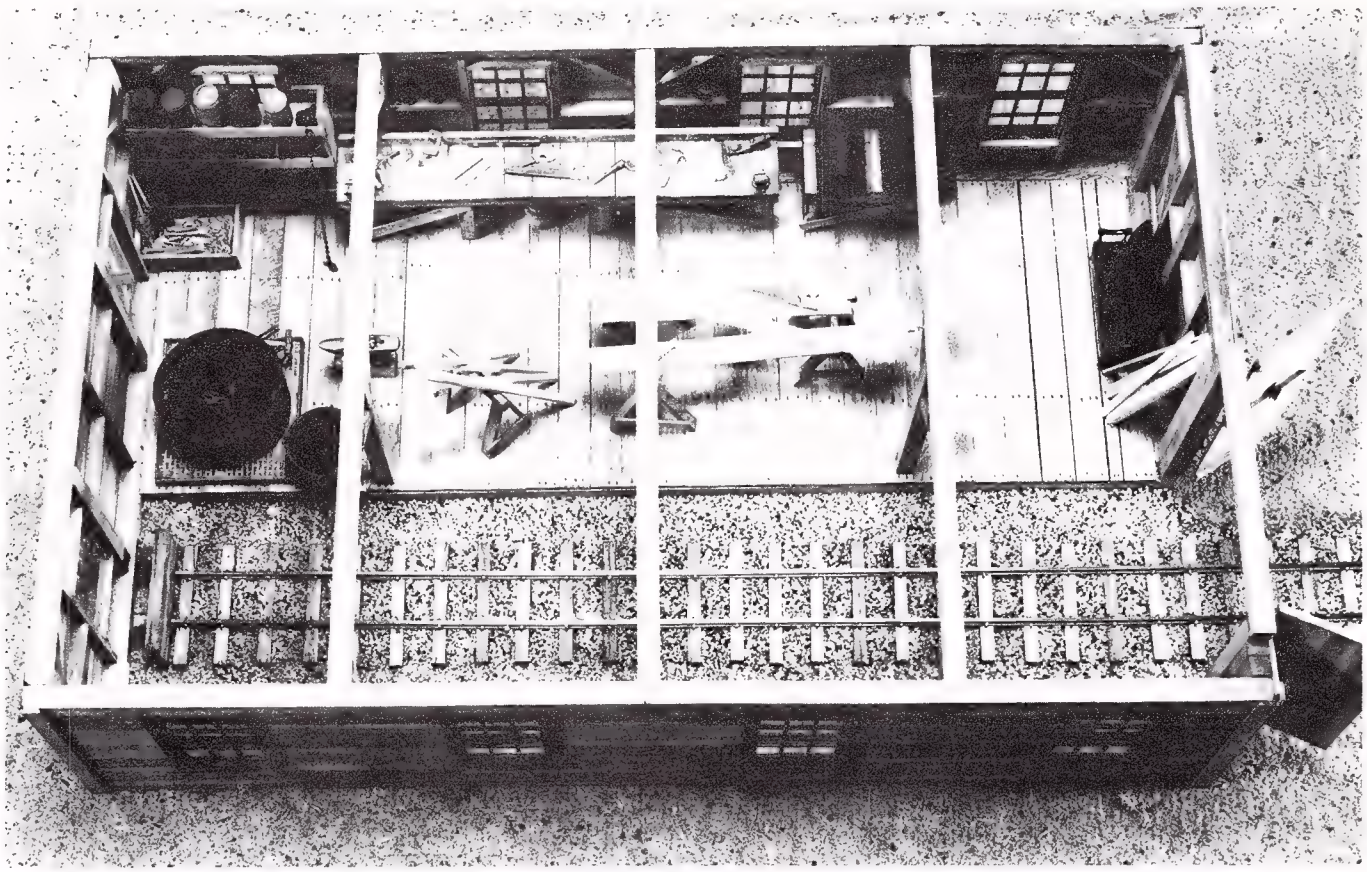
Garrie L. Tufford submitted this interesting photo of early open-pit iron mining on the Mesabi Iron Range near town of Virginia, Minnesota. The photo was taken around 1910. The locomotive behind the Marion shovel appears to be a three-foot gauge H.K. Porter. My guess is that the fellow smiling must be the new man on the job. *Photo from the Tufford Collection.*



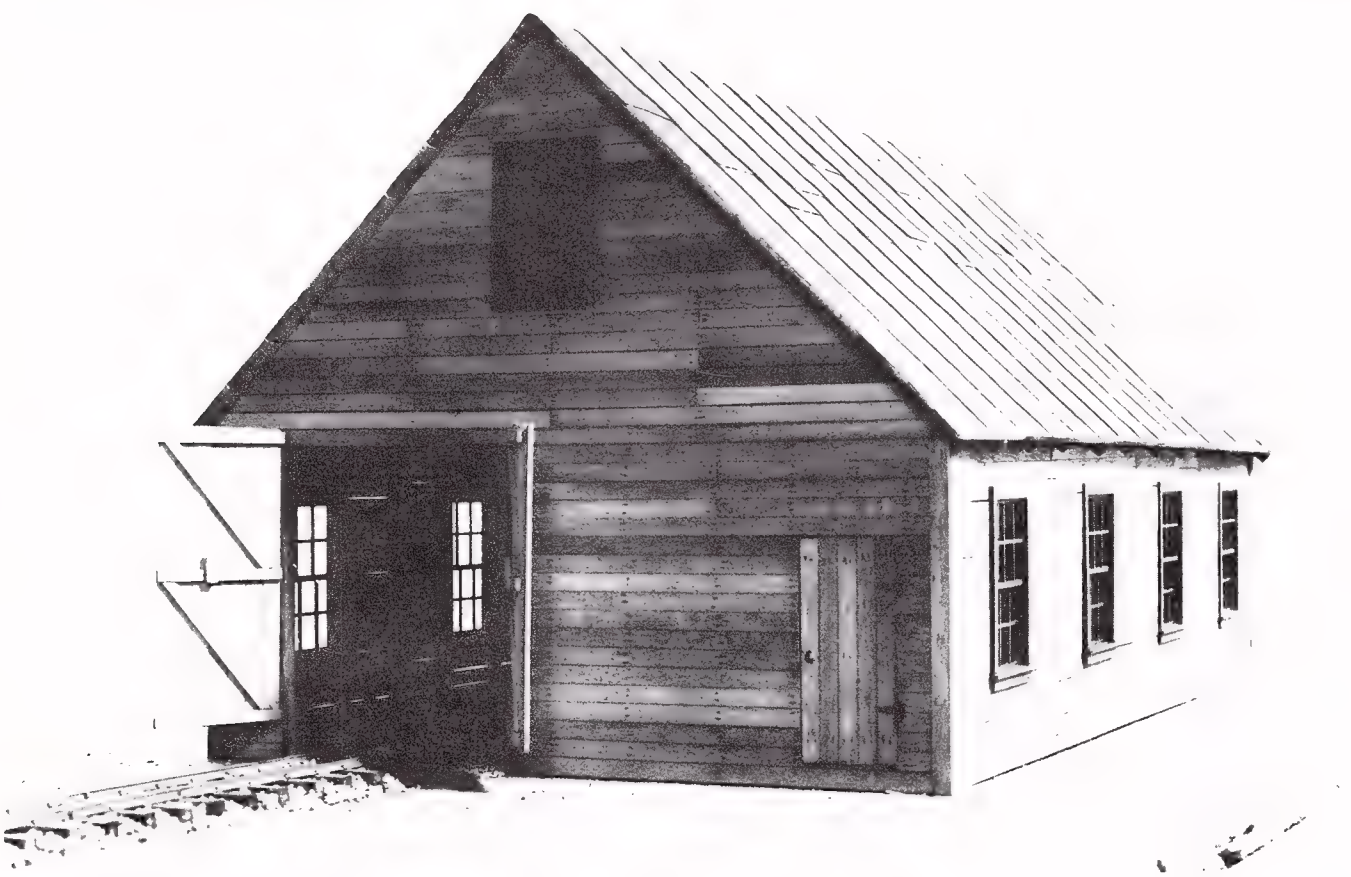


Glen Joesten decided to create a modernized version of the Rio Grande's 48 class 0-6-0T in On3. He used a number of Kemtron C-16 parts including the boiler, cylinders, stack, domes, and cab to create this interesting little locomotive. The model was fitted with a Sagami can motor and KTM gearbox. The results of his effort are most pleasing to the eye. *Photo by Glen B. Joesten.*

In April of 1910, "the finest popcorn wagon ever seen in Petoskey, Michigan" arrived on the Pere Marquette from Chicago. Local resident, I.W. Leach, paid the princely sum of $1500 to become the proud owner. Anyone interested in trying their hand at this one? Bruce G. Gathman submitted this photo after making a copy from a display at a local hospital. *Photo, collection of Little Traverse Regional Historical Society, Petoskey, Michigan.*



Bernie Lewis turned out this fine ¼ inch scale model of the Sandy River & Rangeley Lakes Kingfield Car Shop. He used plans from the *Two Foot Cyclopedia* to build this detailed miniature version. The building is simple yet has character from its weathered and distressed siding. *Photos by George Reynolds.*.



Bruce Gathman submitted this vintage scene from Petoskey, Michigan. The building is still standing alongside what is now the Michigan Northern tracks. The Cornwell Beef Company would make an interesting project for those who are looking for something a little different in the way of small industries. *Photo, collection of Little Traverse Regional Historical Society, Petoskey, Michigan.*

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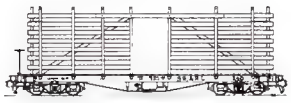

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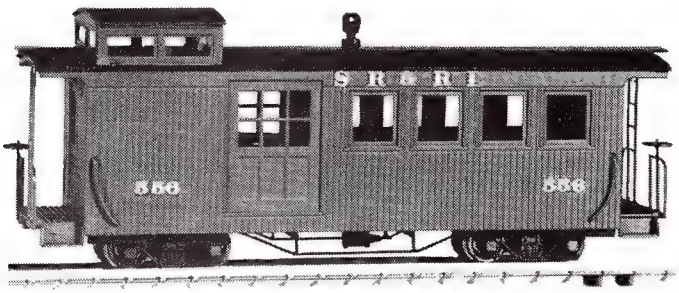

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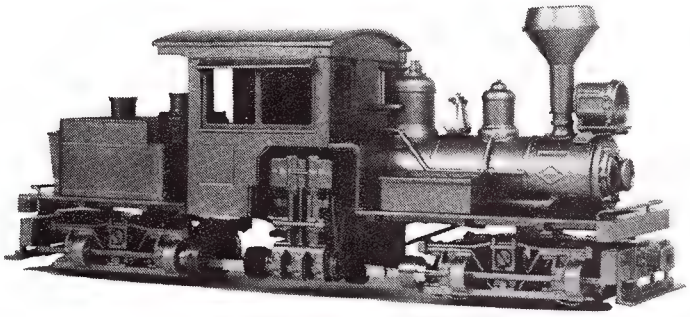

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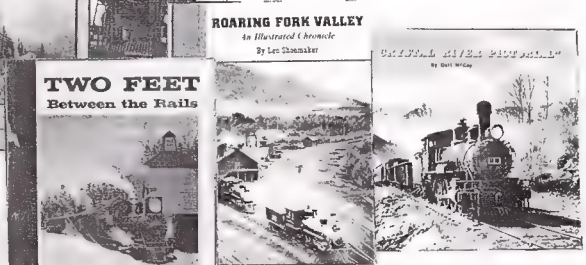

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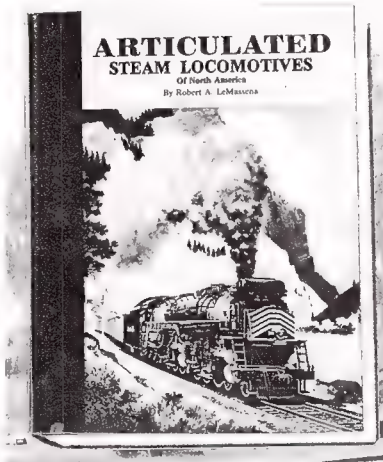

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Book Reviews

Locomotives Large & Small
Don Young
Bardonela
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Isle of Wight
PO36 0HN
England

Locomotives Large & Small is a quarterly magazine for people interested in live steam. The magazine is in its third issue and is a well done periodical. Number 3 had 32 pages of printed material. There are live steam technique articles as well as articles on prototype engines including both main line and small narrow gauge. There are product and book reviews as well as columns. As is usual with live steam magazines there are several series on building various live steam locomotives. One of these is for a Hunslet narrow gauge engine. There are good machine shop ideas and excellent drawings for the various bits and pieces that go into steam locomotives. If you are into live steam or just like to read about steam locomotives try a subscription. The cost is 4.50 pounds a year surface. That is about $10.00. *Bob Brown.*

Shays on the Switchback
Timber Down the Capilano
British Columbia Railway
Historical Association
P.O. Box 114
Victoria, B.C. V8W 2M1

If you are interested in logging you should have these two little books in your library. *Shays on the Switchbacks,* by Elwood White and David Wilkie details the history of the little three-foot gauge Lenora, Mt. Sicker Railway. This line ran on Vancouver Island and hauled copper. The railway boasted three Shays and an old Forney. One of the Shays weighted only 8½ tons. The "big" Shay on the line weighed in at a full 21 tons. The line ran over a series of switchbacks and through canyons. It would make a wonderful model. There was a plan for a 10-ton ore car from this railway in the Nov/Dec 1979 **GAZETTE**. The book is 39 pages long and sells for $2.95.

Timber Down the Capilano is the history of Capilano Timber Company and other railroad logging on Vancouver's North Shore. It was written by David M. Rees-Thomas. The book is 62 pages long and sells for $4.50. The Capilano line was standard gauge and had 14 locomotives. Eight of them were gas-powered. There were also Heislers and Climax locomotives used on the railway. There are many photos of logging operations including some interesting commisary car shots. A complete roster of all the equipment on the line is provided as are complete maps. Many of the photographs are full page and will provide modeling ideas for your logging layout. *Bob Brown.*

Narrow Lines
Bill Corser
3 Arnhem Way, Woodhall Spa
Lincolnshire LN10 6TJ
England

Narrow Lines is the official journal of the 7mm Narrow Gauge Association. This group is interested in the spread of information on On16.5, On3, On30 and other forms of ¼ scale and 7mm scale narrow gauge. I have the first two copies of this little magazine and find them very interesting. The newsletter consists of eight or nine pages of looseleaf legal size pages stapled together. It is mimeographed and covers car construction, trade reviews, and basic construction techniques. There was a War Department gondola plan in #2. One page was devoted to news from America. The Newsletter comes with an annual membership in the Association. An airmail membership costs $16.00. The Newsletter is published six times per year. If the quaint, small, and thoroughly delightful British narrow gauge scene interests you write for a membership. *Bob Brown.*

McGiffert Catalog
Bill Roy
P.O. Box 3695
Eugene, OR 97403

Bill Roy, who wrote the excellent article on the McGiffert log loader in the Sept/Oct 1979 **GAZETTE** has reprinted the Clyde Iron Works catalog which features the McGiffert loader. The catalog is a very limited run and was xeroxed. It is spiral bound and is the full size of the original. The reproduction is clear and there are 95 pages in the book containing text, large format photographs, and detailed McGiffert mechanism drawings. This is a one-run book. Bill says no more copies will be made. The book sells for $20.00 If you are a logging enthusiast don't miss out on this one. It will be gone before you know it. *Bob Brown.*

Colorado Rail Annual #14
Colorado Railroad Museum
Box 10
Golden, CO 80401

The arrival of the *Colorado Rail Annual* is eagerly awaited by all narrow gauge and short line buffs each year. This year marks the 14th year of this fine series. Number 14 is beautifully printed and sells for $17.50 cloth-bound. The first article is on the three private cars on the Silverton run. These are the Nomad, the Cinco Animas, and the General William Jackson Palmer. Each car is covered in detail and four fine color photographs augment the text. The second article is called "D&RG Lake City Branch and a Galloping Goose". It describes the line that once ran up to Lake City, Colorado. There are several full page photographs and maps to help you visualize the line. In its later days this branch was taken over by a man named Mike Burke. He renamed the line, The San Cristobal RR and replaced the steam train with his family car, a 1928 Pierce-Arrow converted to a railcar. Later this unit was rebuilt by the RGS into a Goose that looked just like the more familiar RGS Goose #2. There are several photographs of both the original railcar and the later Goose which I found fascinating. The third article in #14 is a description of Creede and its railroad activities. There are many building and railroad photos including the D&RGW standard gauge railcar #502. Don't miss this excellent book of railroad material. *Bob Brown.*

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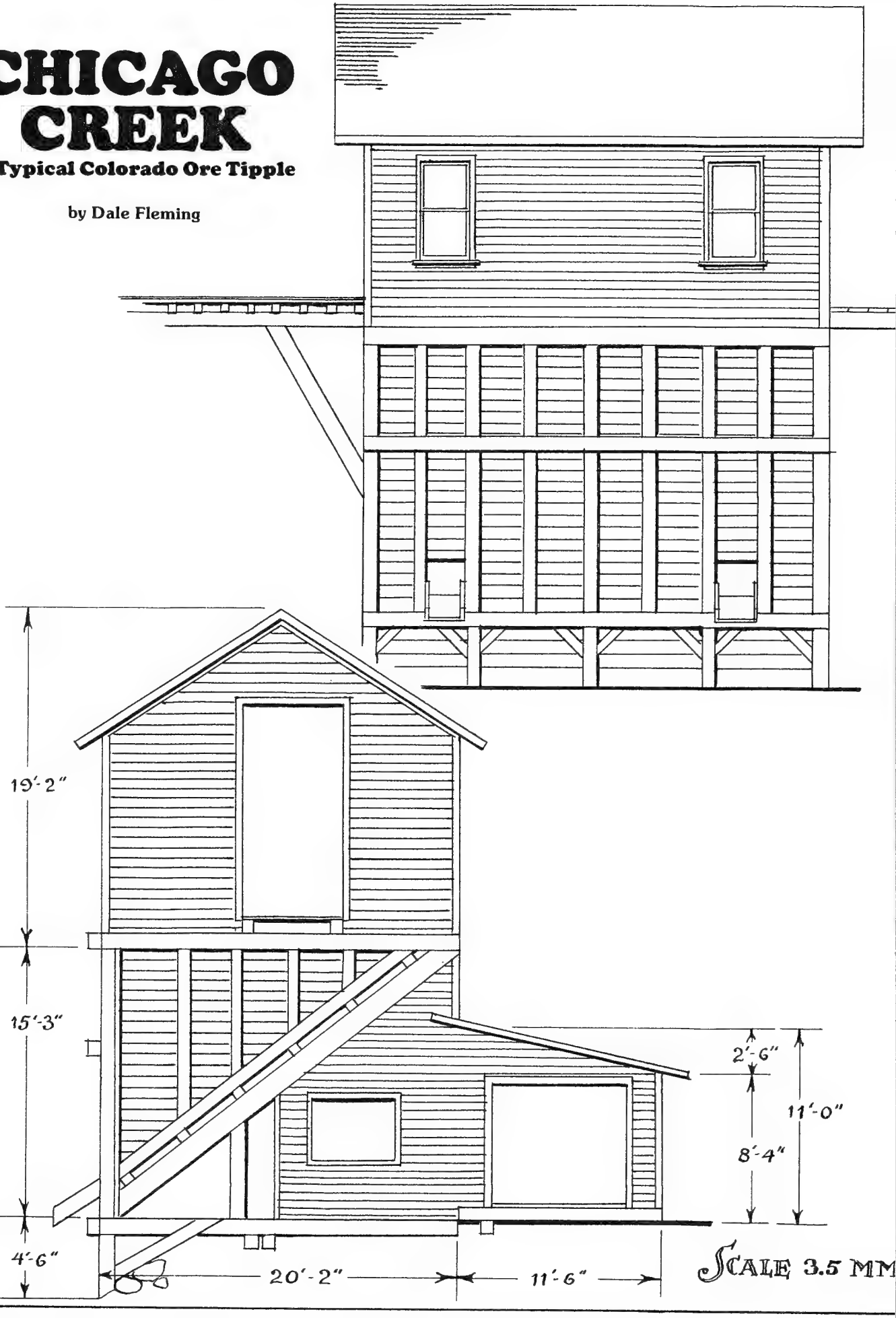
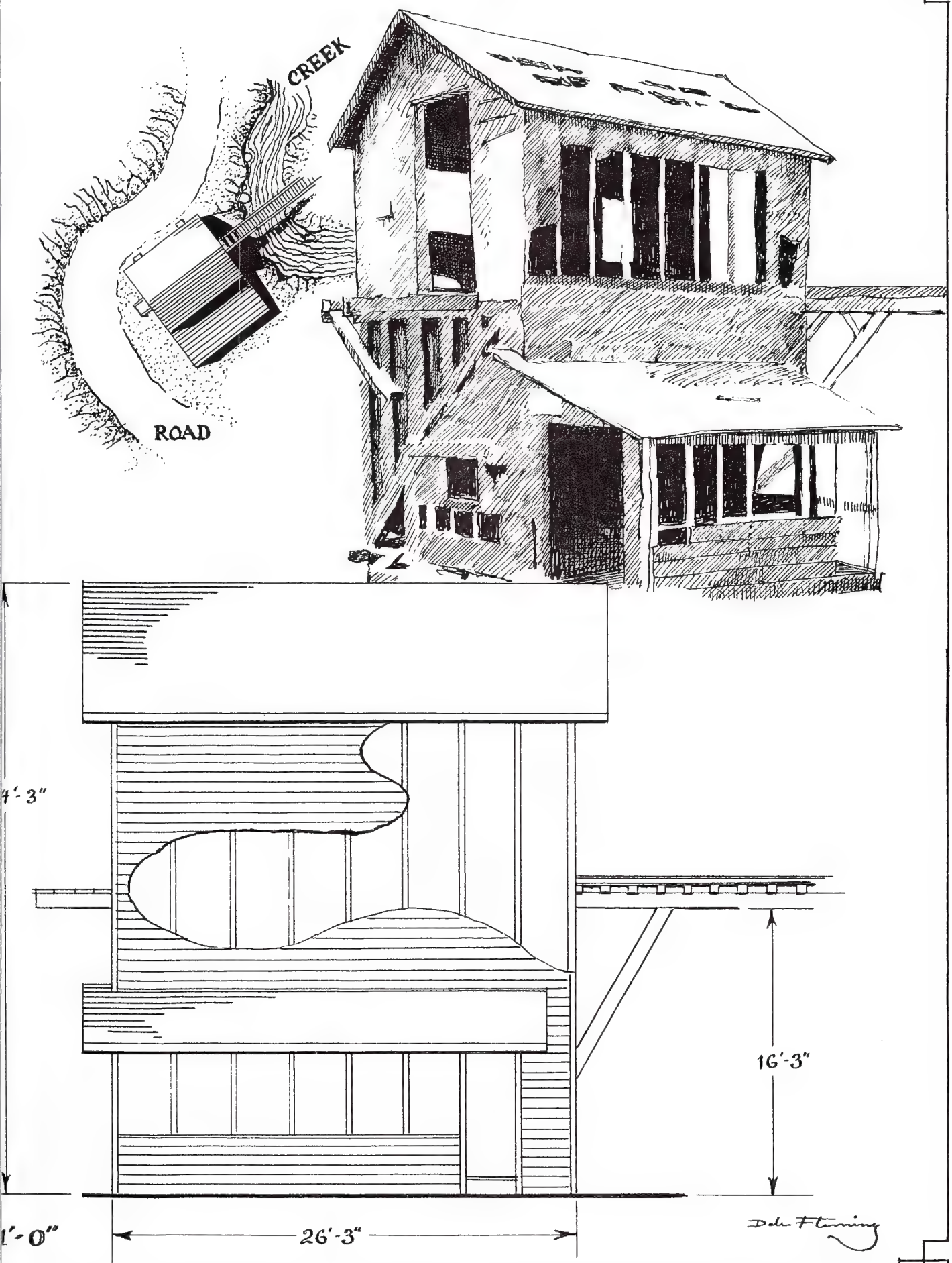
A Typical Colorado Ore Tipple

by Dale Fleming

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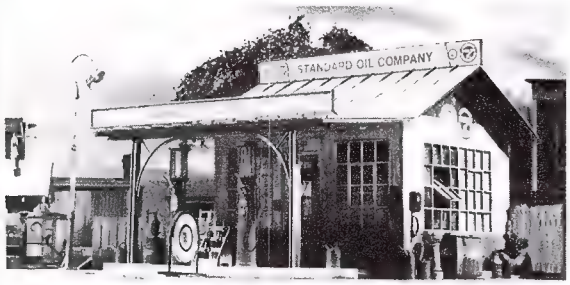

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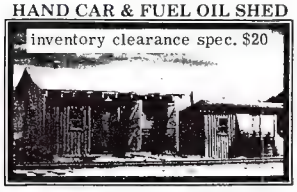

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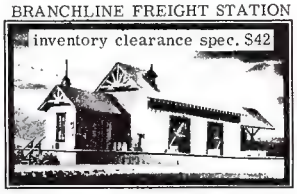

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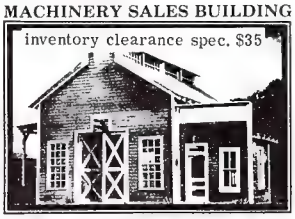

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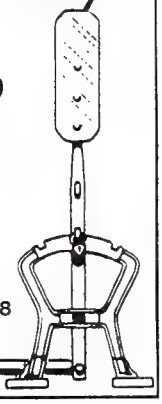

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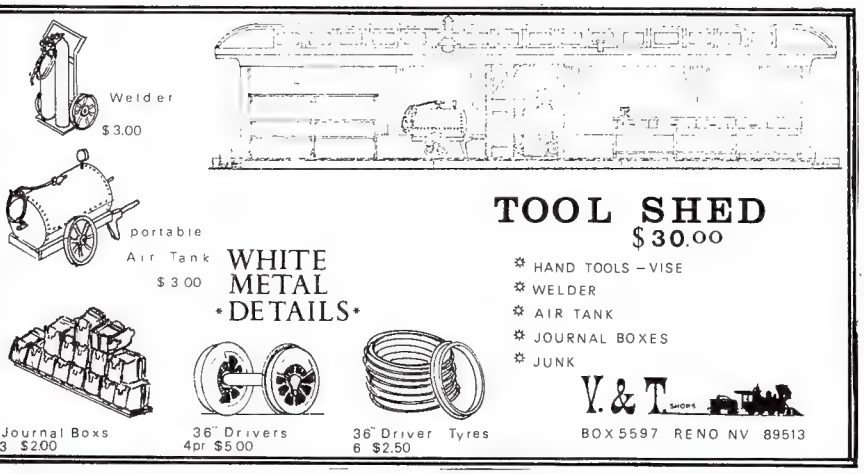

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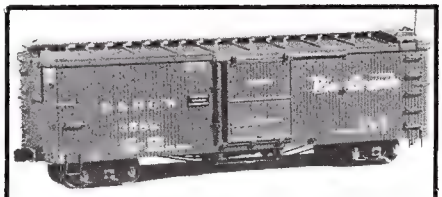

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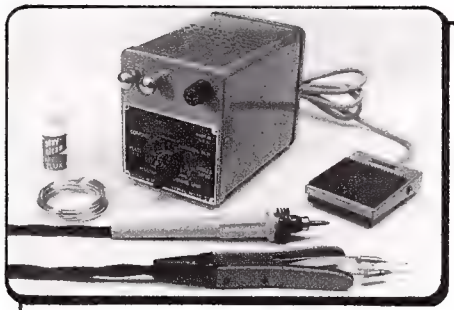

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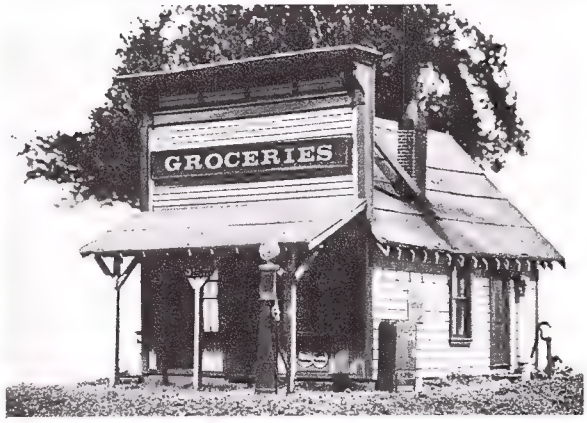

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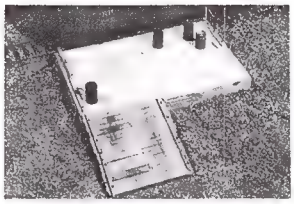

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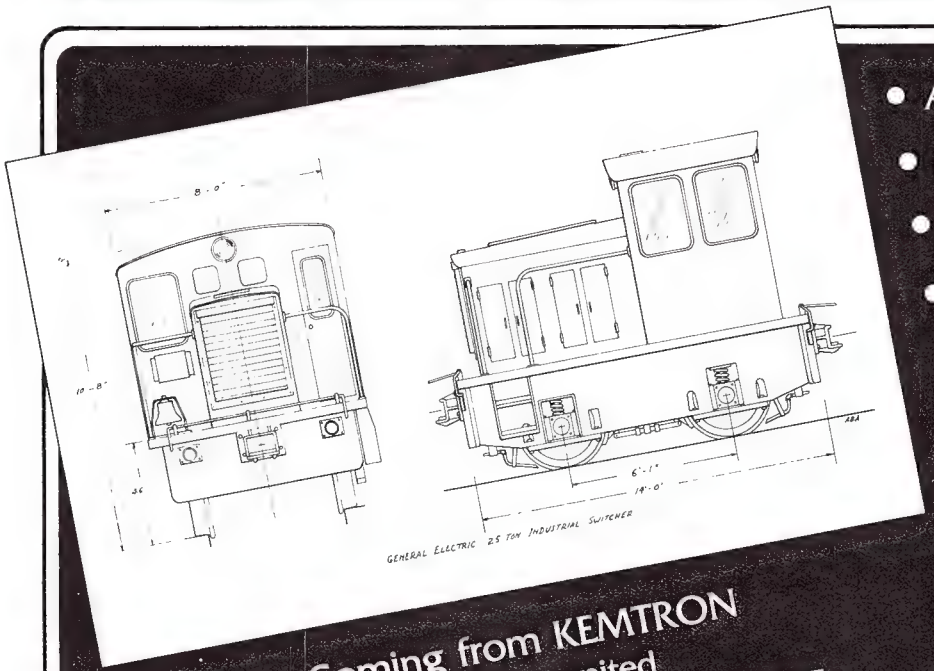

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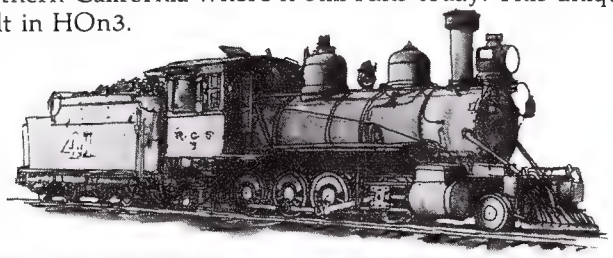

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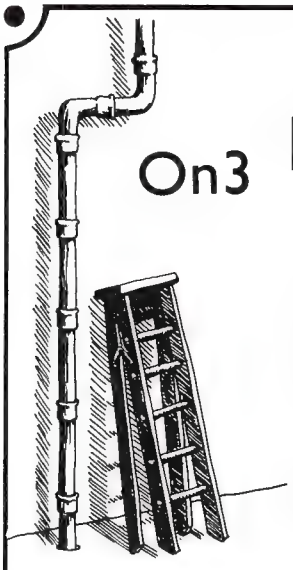

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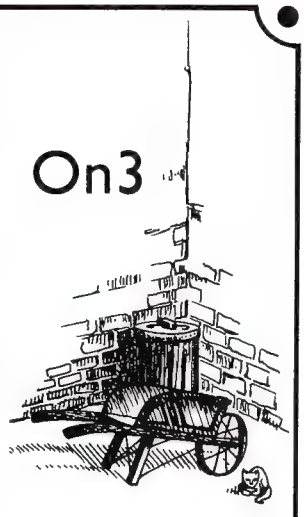
Orders due *last* month must be received by *next* month. SSAE for catalog sheet of detail parts and status of new work in progress such as Tractors, Dunkirk, D&RGW Side Dump Car, and other items.



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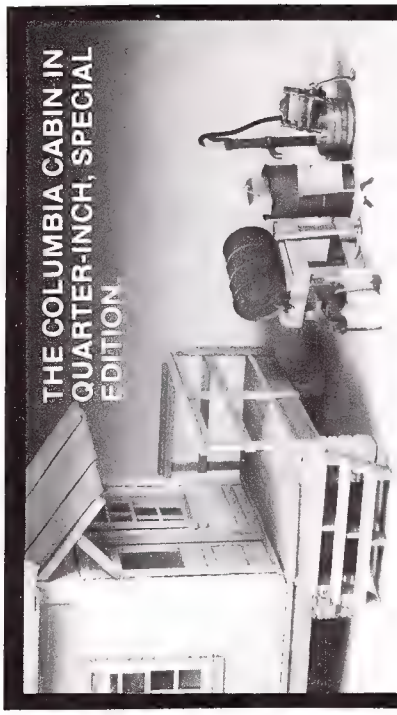

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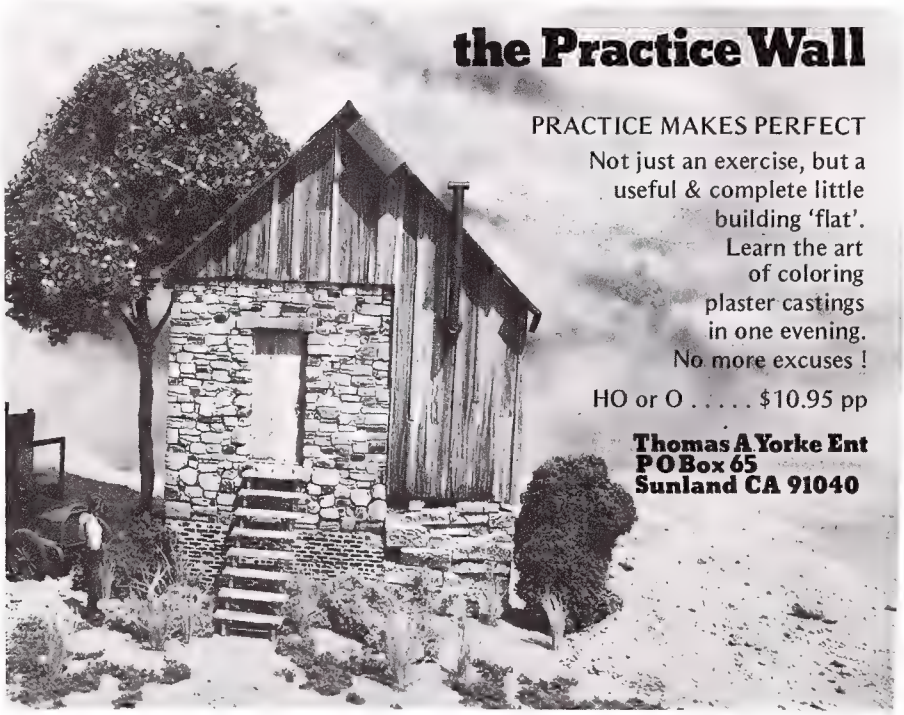

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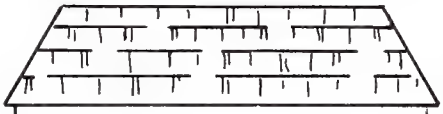

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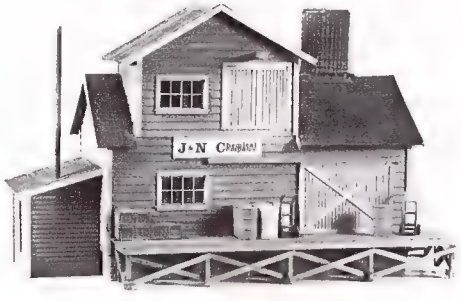

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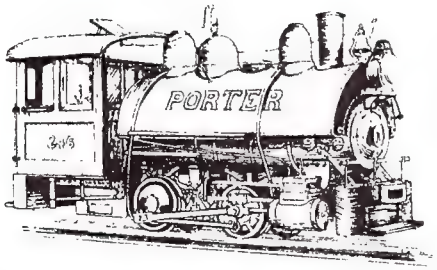

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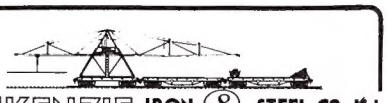

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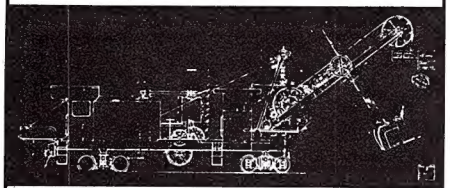

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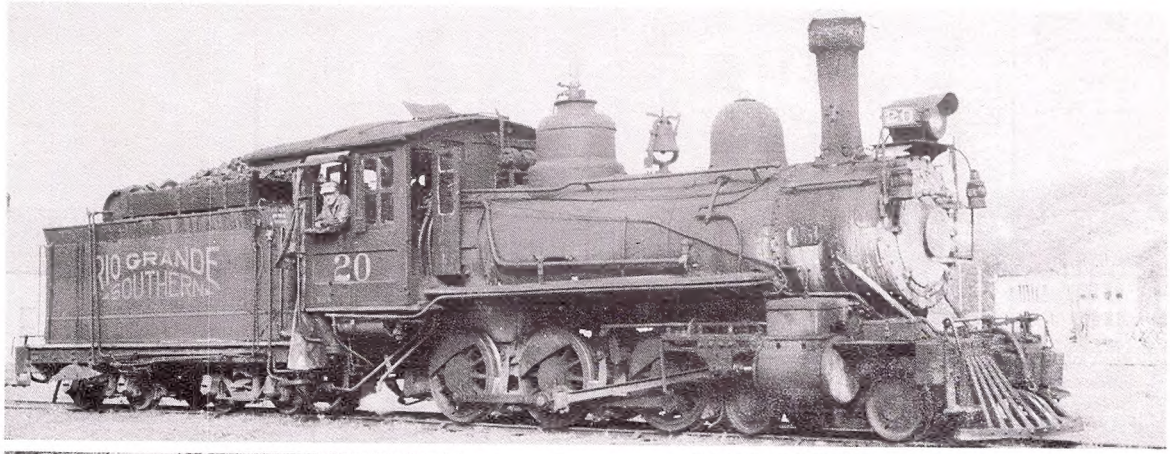

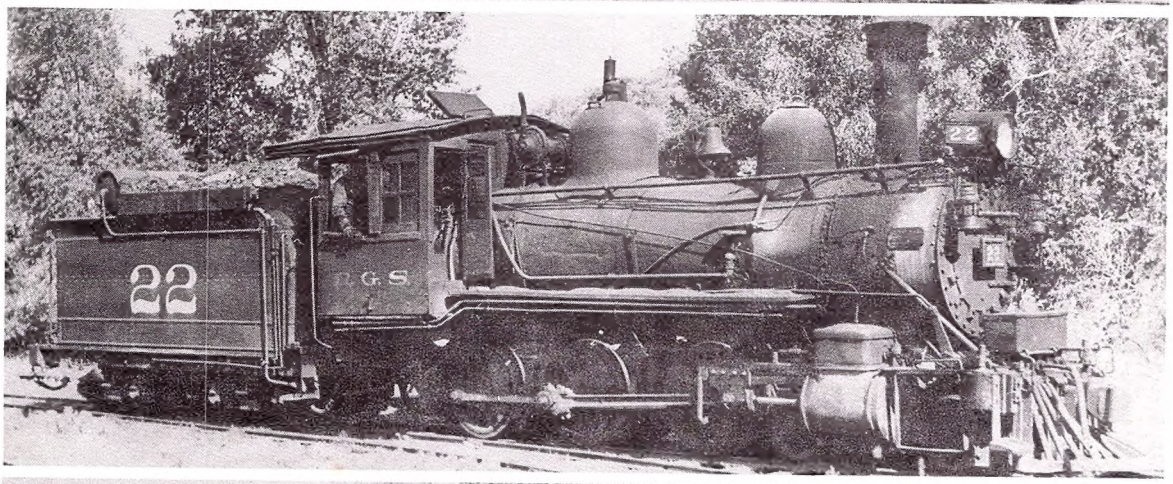

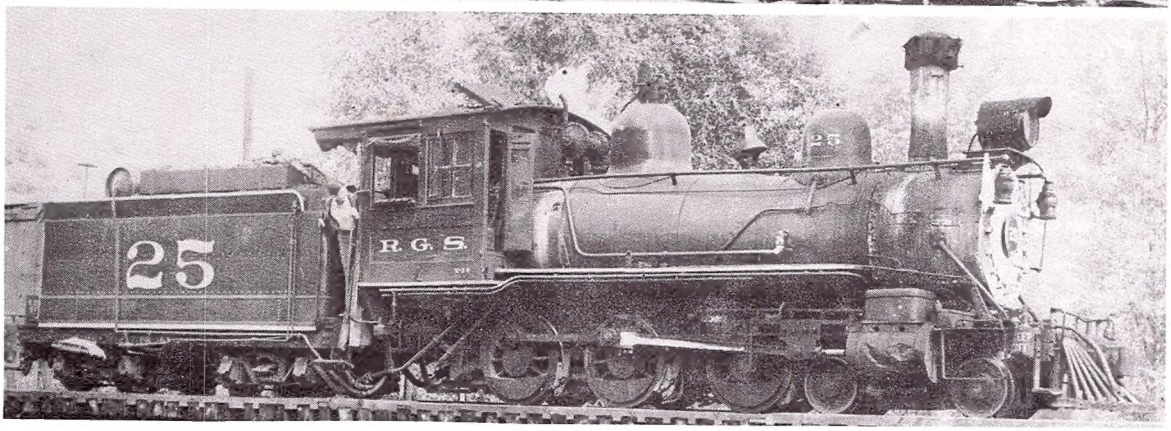

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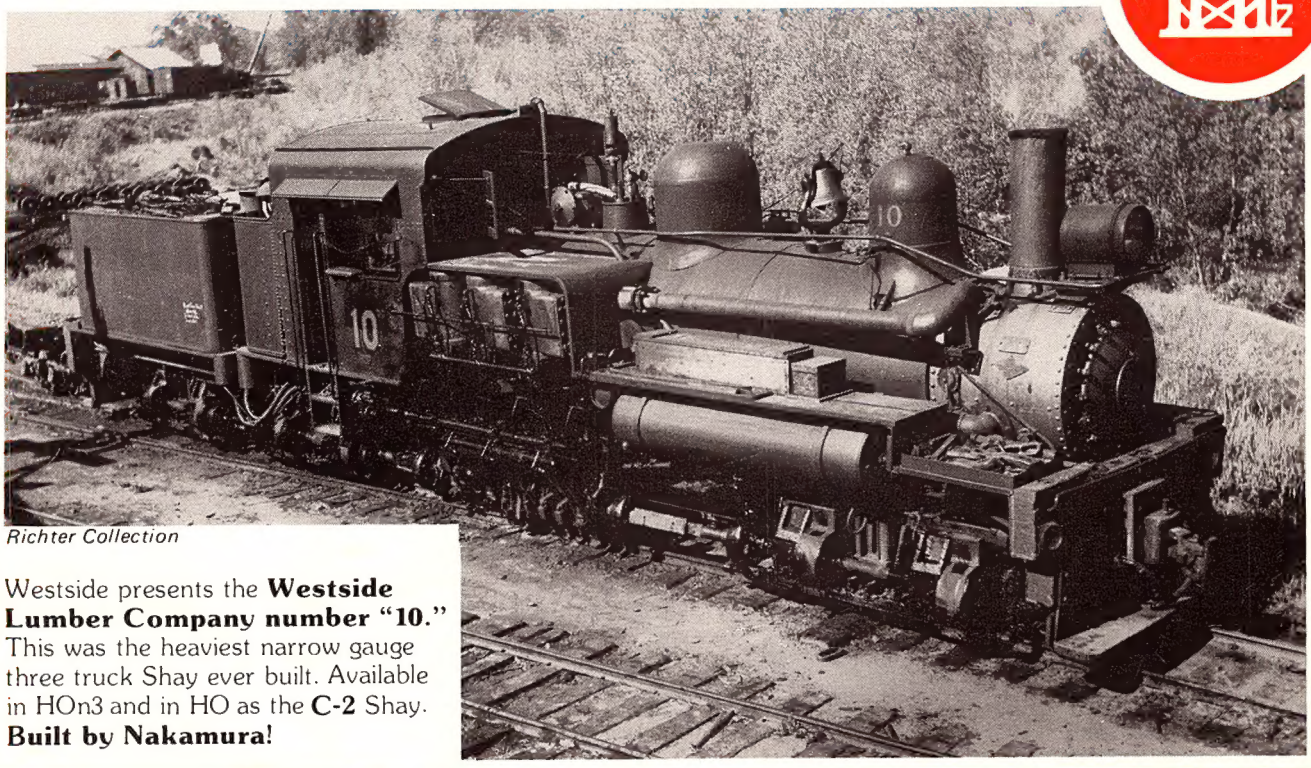

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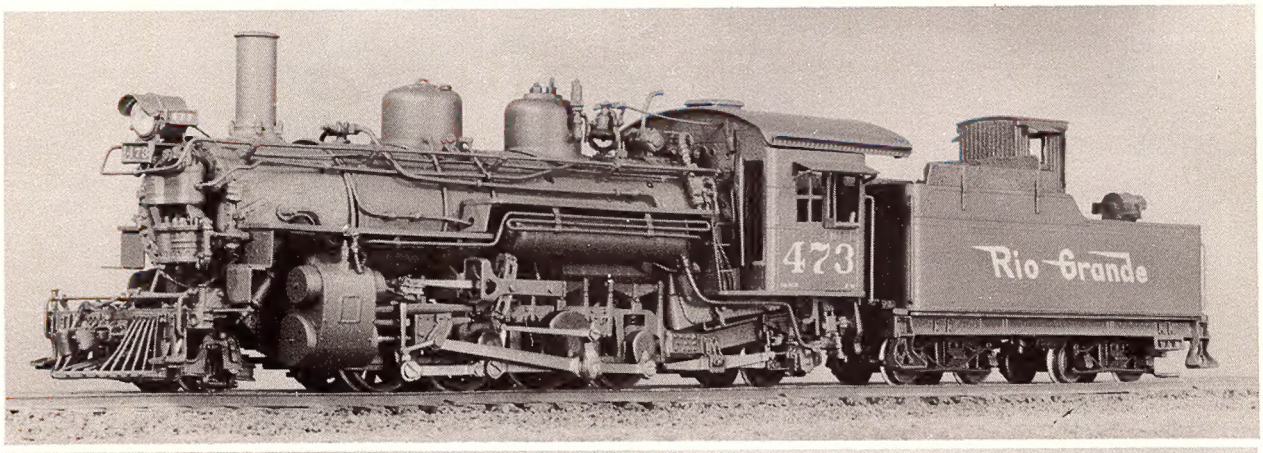

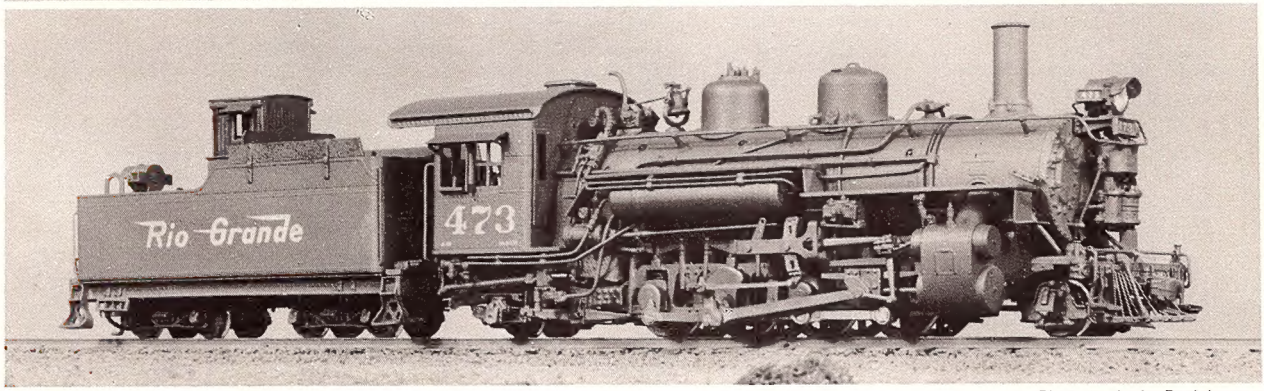

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